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THE
MARINER'S
MEDICAL GUIDE;

DESIGNED FOR THE USE OF

Ships, Families, and Plantations.

CONTAINING THE

SYMPTOMS AND TREATMENT OF DISEASES.

ALSO,

LIST OF MEDICINES, THEIR USES, AND THE MODE OF
ADMINISTERING, WHEN A PHYSICIAN
CANNOT BE PROCURED.

Selected from Standard Works.

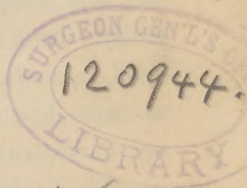
BY JAMES FOLSOM. ✓

THIRD EDITION, REVISED.

BOSTON:
PUBLISHED BY JAMES FOLSOM,
140 COMMERCIAL ST., AND 238 SHAWMUT AVENUE.

1864.

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MEDICAL GUIDE;

DESIGNED FOR THE USE OF

Ships, Families, and Plantations.

Annex

SYMPTOMS AND TREATMENT OF DISEASES.

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1864

LIST OF MEDICINES, AND THE MODE OF
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Selected from Standard Works.

BY JAMES FOLSON.

THIRD EDITION, REVISED.

BOSTON:

PUBLISHED BY JAMES FOLSON,

AT THE CORNER OF N. AND N. WASHINGTON STREETS.

1864.

INTRODUCTION.

THE subscriber, in bringing this work before the public, has not relied wholly on his own experience, but has had recourse to standard works, and the assistance of eminent Physicians. I have endeavored to make it comprehensive and brief; having in view the wants of the mariner at sea, and the family in the absence of a Physician. After twenty years' experience in compounding and dispensing medicines, and having seen so much neglect in supplying vessels with pure medicines, I have been induced by many ship owners and captains to make it an exclusive branch of business — the furnishing and replenishing of Medicine Chests. My object in publishing this little work, is to furnish the requisite knowledge for the proper use of these medicines.

In conclusion, I would offer a few remarks to ship owners and captains, in regard to selecting a

Medicine Chest. The quality of the medicine is of the utmost importance; each article should be selected of the best quality, and carefully put up, so as to be excluded from the air and dampness, as these have a tendency to injure their properties.

A Medicine Chest should not only contain the requisite variety of medicine, but also the proper quantity of each article. It frequently happens, when there is much sickness on board, that the medicine is soon exhausted, from the small quantity furnished; in consequence of which, the sickness is often prolonged, and the services of the patient lost. None but experienced and competent apothecaries should be selected to replenish Medicine Chests, such as the owner would be willing to have dispensed for his own family. A few dollars saved in purchasing a Medicine Chest, are frequently lost in the expense of navigating the ship, from loss of services by sickness.

JAMES FOLSOM, SHIP DRUGGIST,

COMMERCIAL BLOCK, 140 COMMERCIAL ST., BOSTON.

CONTENTS OF THE CHEST.

NO.	DOSES, ETC.
1. Sulphur,	2 or 3 teaspoonfuls daily.
2. Cream of Tartar, . . .	1 to 4 teaspoonfuls, in water.
3. Epsom Salts,	2 to 4 large spoonfuls, in water.
4. Arrow Root,	1 large spoonful to 1 pint boiling water, for gruel.
5. Chamomile Flowers, . .	1 wineglass full of this infusion three times a day.
6. Flax Seed,	2 large spoonfuls, to a pint of boiling water.
7. Flax Seed Meal, . . .	Used for making poultices.
8. Bicarbonate of Soda, .	Half a teaspoonful, in a little water.
9. Turner's Cerate, . . .	An excellent application for cuts and sores.
10. Mercurial Ointment, .	For venereal eruptions, chronic swell- ings, &c.
11. Basilicon Ointment, .	Healing ointment, for sores, cuts, &c.
12. Simple Ointment, . .	For dressing sores, blisters, &c.
13. Blistering Ointment, .	May be spread on brown paper or leather.
14. Elixir Paregoric, . .	From 1 to 2 teaspoonfuls, in water, 3 or 4 times a day.
15. Elixir of Vitriol, . .	From 15 to 20 drops, in water, 3 or 4 times a day.
16. Laudanum,	From 15 to 60 drops.
17. Fryar's Balsam, . . .	From 20 drops to a teaspoonful, on sugar, 2 or 3 times a day.
18. Essence of Peppermint,	From 15 to 30 drops, on a lump of sugar, or in warm water.
19. Spirits of Nitre, . . .	30 drops to a teaspoonful, in water.
20. Balsam of Copaiva, . .	20 to 30 drops, in a little sweetened water.

NO.	DOSES, ETC.
21. Sulphuric Ether, . . .	1 teaspoonful, in sweetened water.
22. Syrup of Squills, . . .	1 to 2 teaspoonfuls, 4 or 5 times a day.
23. Soap Liniment, . . .	For sprains, bruises, &c.; rub in with flannel.
24. Spirits of Lavender, . .	20 drops to a teaspoonful, on a lump of sugar, or sweetened water.
25. Spirits of Camphor, . .	10 drops to a teaspoonful, in sweetened water.
26. Spirits of Hartshorn, . .	20 to 30 drops, in sweetened water.
27. Tincture of Rhubarb, . .	1 to 2 tablespoonfuls.
28. Tincture of Bark, . . .	1 to 2 teaspoonfuls, in wine or water; it has the properties of quinine.
29. Wine of Antimony, . . .	1 to 2 tablespoonfuls, as an emetic, for an adult.
30. Mercurial Solution, . . .	15 drops in water, or tincture of bark.
31. Muriated Tinc. of Iron, .	10 drops every 10 or 15 minutes, in water, for retention of urine.
32. Volatile Liniment, . . .	For sprains, bruises, sore throat, &c., applied with flannel.
33. Castor Oil,	1 to 4 tablespoonfuls, in cold water, with a few drops essence peppermint.
34. Purging Pills,	From 2 to 5, medium dose 3.
35. Gum Arabic,	For coughs, colds, and urinary affections.
36. Blue Pills,	From 2 to 4, as a purge.
37. Opium Pills,	1 pill 3 times a day, for inflammation of the bowels.
38. Fever Powders,	5 grains, or 1 powder, in sweetened water.
39. Calomel and Jalap, . . .	30 grains, or an ordinary sized teaspoon even full.
40. Dover's Powders,	10 to 15 grains, in a little water.
41. Quinine,	1 grain, in 10 drops elixir vitriol and water.
42. Ipecac,	30 to 40 grains, or an ordinary sized teaspoonful, in warm water.
43. Calomel,	5 to 15 grains, in molasses.
44. Tinct. Myrrh,	40 drops to a teaspoonful, in water.
45. Rhubarb,	30 to 40 grains, or 1 teaspoonful.
46. Magnesia,	60 grains, or 2 heaped teaspoonfuls.
47. Peruvian Bark,	15 to 30 grains, in wine or water, 3 times a day.

NO.	DOSES, ETC.
48. Tartar Emetic, . . .	6 grains, in warm water, $\frac{1}{4}$ at a time.
49. Powdered Cubebs, . . .	1 to 3 teaspoonfuls, 2 or 3 times a day.
50. Nitre or Salt Petre, . . .	10 to 15 grains, in water, every 2 or 3 hours.
51. Sugar of Lead, . . .	1 teaspoonful to a pint of water, for a wash.
52. White Vitriol, . . .	20 to 30 grains, for an emetic, in water, $\frac{1}{4}$ at a time.
53. Blue Vitriol, . . .	For destroying proud flesh, &c.
54. Tartaric Acid, . . .	For soda and seidlitz powders.
55. Red Precipitate, . . .	For destroying proud flesh.
56. Alum, . . .	1 tablespoonful to a pint of milk, for alum whey.
57. Gum Camphor, . . .	For camphorated liniment, 1 ounce in a gill of olive oil.
58. Iodide of Potassium, . . .	1 to 5 grains, in syrup or water.
59. Lunar Caustic, . . .	1 grain to 1 ounce of water, as an injection.
60. Lint, . . .	Used in dressing sores, wounds, &c.
61. Adhesive Plaster, . . .	For dressing cuts, wounds, &c.
62. Lancet.	
63. Syringe.	

LIST OF ARTICLES FURNISHED, BUT NOT INCLUDED IN
AN ORDINARY CHEST, UNLESS ORDERED.

Seidlitz Mixture,	Self Syringe,
Powdered Gum Arabic,	Glass Syringe,
Powdered Alum,	Surgeons' Needles and Silk,
Spatula,	Bougies,
Tooth Forceps,	Catheters,
Splints,	Scissors,
Graduate,	Bandages,
Scales and Weights,	Herbs.
Mortar,	

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MATERIA MEDICA.

THE PROPERTIES OF MEDICINES, AND THEIR RESPECTIVE DOSES.

No. 1. Sulphur,

Is a good laxative for people subject to piles, and will sometimes relieve severe attacks of rheumatism. It is used with great success in cases of salivation, caused by mercury. When rubbed up with lard, it makes an excellent ointment for the itch. When mixed in proportion of four table-spoonfuls of sulphur to a gill of molasses, the dose is from two to three tea-spoonfuls, for an adult; and one for a child.

No. 2. Cream of Tartar,

Is a mild, cooling, laxative, diuretic salt. It is esteemed one of the best remedies for dropsy. In moder-

ate doses it increases the flow of urine, and in large doses, proves at first laxative, and then purgative. As a purgative, from one to two table-spoonfuls in molasses or water. A tea-spoonful, dissolved in a tumbler of water or flaxseed tea, makes a cooling drink in fevers and colds.

No. 3. Epsom Salts,

Are a cooling purgative. They should not be used when the patient is weak.

DOSE. — From two to four table-spoonfuls, dissolved in a tumbler of cold water, for an adult.

No. 4. Arrow Root,

Is unirritating and nutritious as a diet, excellent in dysentery and inflammation of the bowels. A table-spoonful mixed in a little cold water until dissolved, then add about a pint of boiling water, let it boil for a few minutes, after which season it with salt, flavor with nutmeg or lemon, and sweeten to taste.

No. 5. Camomile Flowers,

Are an excellent tonic to create an appetite when made into an infusion, which is made by a small cupful added to a pint of boiling water; let it steep for a few minutes, then strain and let cool.

DOSE. — A wine glass full, three times a day.

They are also useful in the form of a poultice, to abate pain.

No. 6. Flax Seed.

This makes a good tea to be drank freely for colds, inflammation of the lungs, and kidneys. The tea is made by taking one table-spoonful flax seed and pouring a little boiling water upon it and let it stand a minute, then pour this water off and add one pint of boiling water to it and let it steep (do not boil it) for fifteen or twenty minutes, then strain, sweeten, and add a little lemon juice or tartaric acid to make it palatable.

No. 7. Flax Seed Meal,

Makes an excellent poultice for sores and inflammations. It should be mixed to a proper consistence with boiling water.

No. 8. Bi-carbonate of Soda,

Is good for acidities of the stomach and heartburn.

Dose. — Half a tea-spoonful, dissolved in a little cold water.

No. 9. Turner's Cerate,

Is a good, soothing ointment for sores, cuts, wounds, &c., and for dressing blisters.

No. 10. Mercurial Ointment,

Is good in chronic swellings, enlargement of the joints and glands; it will destroy vermin which present themselves upon the human body.

No. 11. Basilicon Ointment.

This ointment is useful to stimulate and procure a healthy discharge from ulcerated surfaces, which are not clean, and from wounds which are disposed to heal but slowly. Also, to heal burns and scalds, and in dressing blisters, to keep them open.

No. 12. Simple Ointment,

Is used in dressing blisters and sores, which require healing and not cleansing.

No. 13. Blistering Ointment.

A blister applied to any part affected by inflammation will generally give relief. In affections of the lungs, liver, or any local pain, much good may result from its application. If the blister should cause pain in urinating, let the patient drink freely of flax seed tea, or a dose of Spirits Nitre, (No. 19,) or Laudanum, (No 16.) The blister may be spread on a piece of leather, or brown paper, and remain on the patient six or twelve hours. Blisters will heal quickly when dressed with Simple Ointment, or Turner's Cerate; if you wish to keep them open longer, use Basilicon Ointment.

No. 14. Elixir Paregoric.

This is an anodyne which possesses the properties of relieving pains and procuring sleep. It is an excellent

medicine for children; is good for slight coughs and colds.

DOSE. — From one to two tea-spoonfuls, three or four times a day, in water; for children, from fifteen drops to a tea-spoonful on sugar or sweetened water.

No. 15. Elixir of Vitriol,

Is used in putrid fevers, weakness of the stomach, loss of appetite, and cold sweats; also has a tendency to prevent local bleedings. A few drops added to quinine, in water, will cause it to dissolve more readily.

DOSE. — Fifteen or twenty drops, in water, three or four times a day.

No. 16. Laudanum,

Is a most useful medicine when used with care. It produces sleep, relieves pain, and checks diarrhœa. It possesses all the properties of opium, and operates more speedily. Laudanum may be used for an injection in cases of dysentery. Twenty-five drops is equivalent to one grain of opium.

DOSE. — The ordinary dose for an adult is from fifteen to thirty drops. In extreme cases, where immediate relief is required, the dose may be gradually increased; at the first appearance of relief, the dose should be gradually diminished. For injection, three times the quantity may be given than what would be considered an ordinary dose by the mouth, and must be mixed with starch, or flour and warm water, to the consistency of a thin syrup.

No. 17. Fryar's Balsam,

Is used internally for long-standing coughs, colds, and soreness of the chest. Is applied externally, to heal old sores, cuts, and bruises, with success, as follows: wash out any dirt or extraneous matter that may be in the wound with warm water; bring the lips close together, and spread a piece of lint, wet with the balsam, over the wound; apply a bandage over the whole, and let it remain for two or three days.

DOSE. — From twenty drops to a tea-spoonful two or three times a day.

No. 18. Essence of Peppermint.

This is used in cases of colic, flatulency, pains of the stomach and bowels, sea sickness, and nausea. Also in salts to prevent griping.

DOSE. — From fifteen to thirty drops on a lump of sugar or in warm water.

No. 19. Spirits of Nitre.

A cooling, diuretic medicine, used to promote the secretion of urine, increase perspiration, relieve fever, and allay thirst. Also relieves flatulency or wind, pains in the bowels and stomach.

DOSE. — Thirty drops to a tea-spoonful, in water.

No. 20. Balsam Copaiva.

This medicine acts gently as a laxative, and in large doses as an active purgative. It operates also on the urinary organs, and is much used in gonorrhœa. It has also been used with success in piles, catarrh, and externally as a remedy for chilblains.

DOSE. — Twenty or thirty drops three or four times a day, in a little cold water sweetened with sugar, and add a few drops of Spirits of Lavender.

No. 21. Sulphuric Ether.

This is often given for palpitation of the heart, nervous headache, cramp in the stomach, colic, nausea, and seasickness. Used externally for headache, toothache, rheumatism, and earache. Ten or fifteen drops, in a little water, will relieve a headache almost immediately. Caution should be used to keep this article from a lamp, as it ignites more readily than powder. It evaporates very rapidly, therefore it should not be poured out until you are ready to administer it.

DOSE. — One tea-spoonful in sugar and water, and repeated at intervals until relief is procured.

No. 22. Syrup of Squills.

This syrup is used for coughs and colds, either alone or combined with other medicines. (See recipe for Cough Drops.)

DOSE. — One to two tea-spoonfuls, four or five times a day.

No. 23. Soap Liniment.

This is an excellent embrocation for sprains, bruises, stiff joints, and rheumatism. It should be rubbed into the parts affected, so as to promote a slight irritation; after which wrap the wound in a piece of flannel, and saturate it with the liniment. By adding Laudanum and Spirits of Hartshorn, it makes an anodyne liniment. (See Recipes.)

No. 24. Spirits of Lavender,

Is used as a tonic to revive the spirits. It is good in sea-sickness, nausea and flatulence, also to mix with nauseating medicines to make them palatable.

DOSE.—Twenty drops to a tea-spoonful on a lump of sugar or in water.

No. 25. Spirits of Camphor.

This is a stimulant, and often used for pains in the stomach. Is also used as an external application for swelling of the face, bruises, sprains, rheumatism, and headache.

DOSE.—Ten drops to a tea-spoonful, in sweetened water.

No. 26. Spirits of Hartshorn,

Is used externally in cases of languor or fainting, by holding it to the nose, or mixed with other substances, as

a liniment. See Volatile Liniment, (No. 32.) Used internally in cases of fainting, sinking of spirits, and hysterics.

DOSE. — Twenty to thirty drops in water, well sweetened, and repeated every half hour, as occasion requires.

No. 27. Tincture of Rhubarb.

This preparation is considered one of the best medicines for cases of indigestion, laxity of the stomach and intestines, spasmodic pains in the bowels, and in diarrhœa. Where there exists any tendency to inflammation, it must not be used, as it will add to the complaint.

DOSE. — One to two table-spoonfuls, with about eight or ten grains Bi-carbonate Soda, (No. 8.)

No. 28. Tincture of Bark.

This is an admirable tonic, and has the properties of Quinine. It is good in cases of general debility, indigestion, and languor; also, for persons recovering from sickness, to strengthen the system and create an appetite.

DOSE. — One or two tea-spoonfuls, in wine or water.

No. 29. Wine of Antimony.

This wine is used in small doses to relieve coughs, to promote expectoration, and to produce perspiration. In larger doses, it is given as an emetic.

DOSE. — One to two table-spoonfuls for an adult every fifteen minutes, to produce vomiting. Twenty to thirty drops, as an expectorant.

No. 30. Mercurial Solution.

This solution is used in venereal disease, for copper-colored eruptions of the skin. It contains four grains of corrosive sublimate to an ounce, or half a wine glass full. If the eruptions be attended by pains and sore throat, it may be given in doses of fifteen drops, in water or tincture of bark.

No. 31. Muriated Tincture of Iron.

This preparation of Iron is used in urinary obstructions, when no fever exists. When used for detention of urine, it is necessary that a warm bath should be taken before the remedy is used. If a catheter cannot be introduced, ten drops, given every ten or fifteen minutes, in water, will cause a speedy relief. It is also good in excessive menstruation, in leucorrhœa, or whites, in the latter stages of gonorrhœa and gleet.

DOSE. — Ten drops, in water.

No. 32. Volatile Liniment,

Is good for sprains, bruises, sore throat, stiff joints, rheumatism, &c. This is not generally put into the chest, for the reason that it is better to be prepared when you want to use it. It is prepared by taking one third Spirits of Hartshorn, (No. 26,) two thirds olive oil, mix them together in a vial, (keep the vial corked, as it evaporates.) Applied externally with friction; after which saturate a piece of flannel, and bind upon the part affected.

No. 33. Castor Oil.

This is well known as a gentle purgative, especially adapted to diseases attended with irritation or inflammation of the bowels, as colic, diarrhœa, and dysentery. It is habitually resorted to in cases of pregnant and puerperal women; as a general rule, the safest and best cathartic for children. It may be taken in cold, sweetened water, with a few drops of essence of peppermint. In cases of irritation, add eight or ten drops of Laudanum, (No. 16.)

DOSE. — One to four table-spoonfuls; for children, from one to four tea-spoonfuls.

No. 34. Purging Pills.

These pills are the best in all cases, where a gentle laxative is required, of any pill now in use; they operate without griping, and do not cause debility, or leave the bowels costive.

DOSE. — Three to five.

No. 35. Gum Arabic.

This gum is used in medicine chiefly as a demulcent in coughs and other irritation of the lungs. When dissolved by itself in a solution, or combined with other medicines, it serves to cover and sheathe inflamed surfaces. It is best prepared by dissolving one ounce of gum in a pint of boiling water, and allowing the solution to cool. In many cases of disease, this solution may constitute the exclusive food of the patient.

No. 36. Blue Pills.

These pills are of the same nature as calomel, although not as sure in their operation. It is always necessary, when the pills do not operate as they are expected, they should be assisted by other medicines. Epsom salts, or castor oil may be given in moderate doses. They should not be repeated often, as it will produce salivation, which is required only in extreme cases of dysentery, sore eyes, and venereal eruptions.

DOSE. — One to four.

No. 37. Opium Pills.

These pills are excellent to destroy pain and produce sleep. They are a valuable medicine for the inflammation of the stomach and bowels. They never should be given in inflammation of the brain. It is a desirable medicine in dysentery and diarrhœa. Care should be taken that dysentery is not checked too suddenly.

DOSE. — One pill three times a day, for inflammation of the stomach and bowels.

No. 38. Fever Powders.

These powders should be given in fevers attended by much excitement. They should not be given in cases where the patient is weak. They produce perspiration, lessen excitement and arterial action. It is well to let the patient drink freely of warm drinks, as it has a tendency to aid the powders in their operation.

DOSE. — Five grains, or one powder, every three hours, in sweetened water.

No. 39. Calomel and Jalap.

This mixture is purgative, and consists of two fifths calomel, three fifths jalap. It is good in cases of fever and ague, inflammation of the brain, diarrhœa, and slight attacks of the cholera.

DOSE. — Thirty grains, or an ordinary sized tea-spoon even full ; or in case they are in paper, give one powder.

No. 40. Dover's Powders.

This powder is an excellent opiate, producing a free perspiration in coughs and colds ; it also allays pain, produces sleep, and is used with some degree of success to relieve the pain of rheumatism. Ten grains is equivalent to one grain of opium.

DOSE. — Ten to fifteen grains, in a little water.

No. 41. Quinine.

This is a powerful tonic and strengthening medicine, and should not be used in diseases which are attended by fever, or when the tongue is much coated and the bowels costive ; but may be used advantageously in cases of weakness, loss of appetite, and indigestion. This is an indispensable medicine for fever and ague, but must be given before the chill comes on ; if possible, during the interval between the paroxysms. The bowels should be kept loose in all cases where quinine is used.

DOSE. — One grain, added to five or ten drops of elixir

vitriol in a little water. For fever and ague, the dose may be gradually increased to four grains every three hours.

No. 42. Ipecac.

This is a mild emetic, which does not cause weakness, and may be used with perfect safety. It is peculiarly adapted by its mildness and efficiency to all cases in which the object is merely to evacuate the stomach, and is usually thrown from the stomach in one or two efforts. If the stomach be with difficulty excited to vomit, you may add one or two grains tartar emetic, which will make it more active in its operation. It is used with some degree of success in dysentery, diarrhœa, and coughs, in doses from a half to one grain, every three or four hours, in water or molasses, to produce nausea.

DOSE.—Thirty to forty grains, mixed in one half a tumbler of warm water, and give one third every fifteen minutes, until it operates. During its operation, give a plenty of warm water or thin gruel.

No. 43. Calomel.

Calomel acts upon the bowels, skin, liver, and secretions generally. When used as a purgative, it is best to combine it with powdered rhubarb or jalap; without which, it generally takes about eight hours for it to operate—and then often requires some other cathartic to assist in its operation. When the tongue is coated and the breath offensive, calomel should be used. If the

patient's bowels be hard to move, it may be followed the next morning with a dose of salts, or castor oil. The dose of calomel and rhubarb, or jalap, is ten grains of calomel and fifteen of either of the others.

Dose. — Five to fifteen grains, in molasses.

No. 44. Tincture of Myrrh.

Two or three tea-spoonfuls of the tincture of myrrh, added to a tumbler of warm, sweetened water, will make a very useful gargle for sore mouth and ulcerations of the throat. It is applied sometimes to ulcers, and, diluted with water, to spongy gums.

No. 45. Powdered Rhubarb.

This is an excellent, mild, and safe purgative, and useful as a laxative. It is extensively used in diarrhœa. In fevers, where a purgative is required, rhubarb is recommended, as it does not weaken the stomach. Rhubarb, combined with magnesia, in the proportion of a tea-spoonful of rhubarb and three of magnesia, with a few drops essence of peppermint, mixed in a gill of water, makes a good purgative for diarrhœa. A small piece of the root, chewed occasionally, is beneficial to persons of a bilious temperament, or troubled with indigestion.

Dose. — Thirty or forty grains, (a tea-spoonful.)

No. 46. Calcined Magnesia.

Magnesia is a laxative, and neutralizes the acidity of the stomach, and will sometimes act as a purgative where the stomach is very acid. It is good for the heartburn, but should not be used habitually, as it will sometimes concreate in the intestines. When magnesia is given with acid drinks, it purges freely. Magnesia should be excluded from the air.

DOSE. — One drachm, or two tea-spoonfuls, given in water.

No. 47. Peruvian Bark.

This is an excellent tonic, and used for general debility of the system. It is often used as a substitute for quinine, in fever and ague. A tea-spoonful may be taken three or four times a day, in port wine; it must always be taken between the fits, and never when they are on.

DOSE. — Fifteen to thirty grains, three or four times a day.

No. 48. Tartar Emetic,

Is employed as an emetic in the commencement of fevers, especially those of an intermittent or bilious character, in jaundice, hooping cough, and croup. It may be given in case of fevers, in robust men, when diarrhœa or sickness at the stomach does not occur. It acts powerfully as an emetic, and should not be given to children, or weak persons. In small doses, from one eighth to a

quarter of a grain, it will produce free perspiration. It is also used as an irritating ointment, (see Recipes,) which will irritate or blister more readily than blistering ointment, and is used for soreness of the chest, lungs, back, &c.

DOSE. — For an emetic, dissolve six grains in half a cup-ful of warm water, give one third; should it not operate in ten minutes, give a table-spoonful of the balance every ten minutes, until it operates. Warm water or camomile tea may be given to assist its operation.

No. 49. Powdered Cubebs.

Cubebs are extensively used for gonorrhœa and gleet. The bowels should be well purged before using them. The diet should be low, to subdue inflammation.

DOSE. — One to three tea-spoonfuls, three or four times a day, in water; it is sometimes beneficial to add a few drops of spirits nitre.

No. 50. Nitre, or Saltpetre.

Nitre is a cooling medicine. It is used to lessen fevers and increase the flow of urine. Should its use cause pain in the stomach, it should be discontinued.

DOSE. — Ten to fifteen grains, in water, every two hours.

No. 51. Sugar of Lead.

This is a powerful astringent, and used to restrain all profuse discharges, when unattended by fever. It should never be given in large doses, nor should small doses be repeated often. It is given internally to stop bleeding from the stomach, bowels, womb, and lungs, in doses of one to three grains, with a half grain of opium in the form of pill, or in powder, with a few drops of Laudanum, (No. 16,) in molasses, repeated every one or two hours. Its principal use, however, is as an external application or wash to inflammation upon the surface, to the eyes, and wherever there is local irritation, heat, swelling, and pain. There is nothing which will lessen heat in a greater degree, and with more certainty, than the sugar of lead in solution, properly applied. The following makes a good solution for external application : Dissolve from one to two tea-spoonfuls, in a pint of water. For an injection in gleet it is very efficacious ; for this purpose, dissolve thirty grains in a pint of water. For piles, ulcers, sores, &c., make an ointment, consisting of half a drachm of sugar of lead, one drachm of powdered opium, one and a half ounce of lard, mixed thoroughly together.

No. 52. White Vitriol.

This is a speedy emetic in cases of poisoning ; in which case, take twenty to thirty grains, or half a tea-spoonful, dissolve in a tea-cupful of water, and give one third ; in five minutes give another third ; if this does not operate,

give the balance. It is also used as an injection for gonorrhœa, in the proportion of thirty grains to a pint of water. For an eye-wash, dissolve two grains in an ounce of water.

No. 53. Blue Vitriol.

This is sometimes used internally as an emetic, in cases of poisoning. The dose for an emetic is from two to five grains. It is principally used for destroying proud flesh, and the callous edges of old sores and ulcers, and prepares them to heal; for this purpose it is powdered and sprinkled on the sores. A solution of four grains of the vitriol to eight ounces of water, is often used as an injection, in protracted cases of gonorrhœa. The powder, applied to chancres, will heal them, but blue pill or calomel must be used internally at the same time.

No. 54. Tartaric Acid.

A tea-spoonful, dissolved in a tumbler of sweetened water, makes an agreeable drink; and useful as a cooling drink in fevers. One tea-spoonful of Acid, (No. 54,) and one of Bi-carbonate Soda, (No. 8,) makes an agreeable effervescing drink; dissolve each powder separately, in a tumbler, one third filled with water; when dissolved, pour them together and drink while effervescing. Used in cases of nausea, vomiting, sick-headache, and heart-burn. This is used in the Seidlitz Powder.

No. 55. Red Precipitate.

This is used to destroy proud flesh on indolent sores. When made into an ointment of one drachm to an ounce of lard, it stimulates indolent ulcers, cures itch, &c. To destroy proud flesh, sprinkle the parts affected with the powder.

No. 56. Alum,

Is used as an astringent in cases of bleeding from the bowels and nose. In cases of bleeding from the nose, dissolve a tea-spoonful of the powder in a small quantity of water, and soak a plug, made of linen, in the solution, and introduce into the nostril. It is a speedy emetic in doses of a tea-spoonful. Is sometimes used in cases of croup with success. The dose for a child a year old is a tea-spoonful ; in large doses it operates both as an emetic and cathartic. The best form of giving it internally, is that of alum whey, made by adding one even table-spoonful to a pint of hot milk ; the dose of the whey is from half a gill to a gill. Is also used as a gargle for sore throats ; and as an injection in gleet and clap, composed of a tea-spoonful to a gill of water. Burnt alum is good to remove the proud flesh of ulcers ; which is prepared by burning a lump of alum in an iron spoon until the water is driven off, when it should be finely powdered.

No. 57. Gum Camphor.

This is a stimulant, and lessens pain. Spirits of Camphor is made by dissolving one ounce of the gum in one pint of alcohol or rum. Also, used to make camphor liniment for sprains, bruises, rheumatic or gouty affections of the joints, and other local sprains, by dissolving one ounce of the gum in a gill of olive oil.

No. 58. Iodide Potassium.

This is used for scrofula and several diseases, to a great extent. It is a powerful purifier of the blood; for all eruptions of the skin; enlargement of the glands; and in all diseases caused by an impure state of the blood, this medicine should be used. It may be assisted by a blue pill, three times a day, where the patient's strength and vigor is undermined.

The dose is one to five grains, dissolved in water, and given three times a day. One drachm, dissolved in one or two tea-spoonfuls of water, and rubbed up with an ounce of simple cerate or lard, makes an excellent ointment for chronic affections of the limbs and joints.

No. 59. Lunar Caustic.

This is used to destroy proud flesh, warts, and chancres, by rubbing a piece over the parts affected. Also, used as an injection for clap, in the form of a solution of one grain to one ounce of water.

No. 60. Lint.

Lint is used for dressing sores. Ointment should be spread upon a piece of lint, in dressing sores, as it is softer, and more easily removed by soaking with warm water.

No. 61. Adhesive Plaster.

This plaster cloth is used in dressing wounds, cuts, &c. When applied, should be cut in narrow strips, and warmed by a fire, or the heat of a candle, and the edges of the wound should be drawn together, and the plaster cloth laid over cross ways, in order to hold them in their place; then cover the whole with a piece of Lint, and bandage, but not so tightly as to stop circulation.

Symptoms and Treatment of Diseases.

The chief object in compiling this work has been to afford assistance to those who are removed from medical or surgical aid, by placing, in as plain and intelligible a form as possible, the proper course of proceeding in the treatment of those diseases, or accidents, most frequently met with. All technicalities have been avoided, and the symptoms of disease described in the plainest manner.

The Pulse.

THE pulse is caused by the beating of the heart and arteries. It may be felt in any of the arteries of the body, but most conveniently in the wrist. Sometimes it

is more perceptible in the temporal artery, — the radial artery being small. The radial artery will sometimes divide, and the larger branch run upon the outside of the radius. In this case, the pulse in the usual place, will be faint, when the circulation is actually strong and vigorous. You should be careful and guard against this mistake, as you may think the patient very weak, when, in fact, there is nothing the matter. The pulse is the truest index of the force and rapidity of the circulation. In fevers it is full, hard, and quick, or frequent, though not so full and forcible as in inflammations. In the continued fever, the pulse will beat from ninety to a hundred and twenty strokes in a minute. In general, the quicker the pulse, the more severe and dangerous the disease. The pulse of a grown person, in health, is estimated, in general, to be seventy-three beats in a minute; if it rises above eighty, it is supposed to indicate some degree of fever, or some disorder of the system. Some people have a remarkably slow pulse in health. An intermitting pulse is supposed to indicate some disorder of the heart, a great state of weakness, the approach of death, or some nervous affection. By intermitting, is meant irregular; that is, the pulse beats a few times, then stops a few beats and begins again. A nausea, or sickness at the stomach, either from disease or medicine, will cause an intermitting pulse; it also attends dropsy of the heart, chest, and brain. Some persons will have an intermitting pulse nearly their whole lifetime, without apparent disease, unless it be some slight nervous affection. The younger the person the quicker the pulse.

At birth, the pulse is from a hundred and thirty to a

hundred and forty in a minute. At the age of seven years, from eighty-five to ninety. At fourteen, from eighty to eighty-five. At middle age, from seventy to seventy-five. At old age, from sixty to sixty-five.

Fevers.

SYMPTOMS. — Hot and dry skin, thirst, quick pulse, tongue furred and dry, depression of strength, pain in the back and loins. These symptoms vary with the particular form of fever: sometimes only a few will present themselves. The different kinds of fever will be found under the names of Bilious, or Remittent; Intermittent, or Fever and Ague; Yellow, Scarlet, and Typhus.

TREATMENT. — This depends on the kind with which the patient is affected. A few general remarks will suffice here, as the different kinds will be treated under their several names elsewhere. The bowels should be regulated by some of the following purgatives: Two table-spoonfuls of Castor Oil, (No. 33,) or a tea-spoonful of Powdered Rhubarb, (No. 45,) or a dose of Purging Pills, (No. 34.) In cases of much nausea, give fifteen grains Calomel, (No. 43,) as this will remain on the stomach, when the other purgatives may be thrown up. Perspiration should be promoted by soaking the feet and sponging the body in weak ley water. The diet should consist of toast and tea, arrow root, broth, beef tea, and gruel; and the drinks cooling, such as Cream of Tartar, (No. 2,) and water, tamarinds and water, or toast water; a tea-spoonful of Spirits of Nitre, (No. 19,) in a little water, every two hours, will prove very beneficial to break

up a fever. If delirium attends, add a little mustard to the foot bath. If the patient grows weak after giving the above nourishment, strength must be supported by giving Quinine, (No. 41,) Elixir Vitriol, (No. 15,) or Tincture of Bark, (No. 28.) If weakness still increases, add to the quinine a little wine or brandy.

Intermittent Fever, or Fever and Ague.

SYMPTOMS. — Fever and Ague is known by three accessions: First, chills and shivering; second, fever, attended by excessive heat; third, by perspiration.

COLD STAGE. — An intermitting fever generally begins with pain in the head and loins, weariness of the limbs, coldness of the extremities, stretching, yawning, sometimes with great sickness and vomiting; which is succeeded by shivering and violent shaking; respiration is short, frequent and anxious.

HOT STAGE. — After a longer or shorter continuance of shivering, the heat of the body gradually returns; at first, irregularly and by transient flushes; soon succeeded by a steady, dry, and burning heat, considerably above the natural heat. The skin, which was before pale, now becomes swollen, tense, and red, is remarkably sensible to the touch. The sensibility, diminished in the cold stage, becomes very acute; pains attack the head, and darting pains are felt in various parts of the body. The pulse quick, strong, and hard; the tongue white and parched, and the thirst is great.

SWEATING STAGE. — A moisture is at length observed to break out upon the face and neck, which soon becomes

universal and uniform. The heat falls to its usual standard; the pulse diminishes in frequency, and becomes full and free; all the functions are restored to their natural order; when, after a specific interval, the paroxysm returns, and performs the successional evolutions, generally once in twenty-four hours. Sometimes, in this fever, there is more or less delirium.

TREATMENT. — If in the cold stage, place the patient in bed, soak the feet in a tub of warm water, and give warm drinks, such as pennyroyal tea, lemonade, molasses and water, warm; apply bottles of warm water to the pit of the stomach and thighs, and give thirty drops Laudanum, (No. 16.) During the hot stage, all heating things should be laid aside, cool air admitted, and cool drinks given, the head and face bathed with cold water and vinegar. Give an emetic of Ipecac, (No. 42.) After the operation of the emetic, give a dose of Calomel and Jalap, (No. 39,) or Castor Oil, (No. 33,) or some other cathartic. After the stomach and bowels are thoroughly evacuated, and during the intermission of the paroxysm, give one grain Quinine, (No. 41,) dissolved in ten drops Elixir Vitriol, (No. 15); or a table-spoonful of Tincture Bark, (No. 28,) every two hours. To hasten a perspiration, give ten grains Dover's Powder, (No. 40,) or a tea-spoonful of Spirits Nitre, (No. 19.) Care should be taken not to give the quinine or tincture of bark until the sweating stage has ceased, and the pulse soft and quiet. A convenient way of administering the quinine is by dissolving sixteen grains in a wine-glassful of water with a tea-spoonful of Elixir Vitriol, (No. 15,) added to the solution (as quinine will not dis-

solve without the acid); one tea-spoonful of this solution will contain one grain of quinine.

When ague-cakes form in the liver and spleen, and the abdomen becomes swollen, calomel, in small doses, or the blue pill, will be the only remedy upon which any reliance can be placed. The diet should be light and nourishing; food should never be taken into the stomach in a paroxysm of the fever; but when the paroxysm has subsided, broths, soups, boiled chicken, and vegetables, may be freely taken; mutton, and all meats of easy digestion, may be eaten with moderation. All intoxicating drinks should be avoided; they will invariably retard the cure, where they do not convert the disease into an incurable chronic inflammation of the vital organs of the body.

Bilious, or Remittent Fever.

SYMPTOMS. — This fever commences with a distinct chilly fit, of greater or less duration, and is succeeded by ordinary symptoms of fever, with a frequent, full, and soft pulse; is not accompanied with much acute pain, but with great aching and restlessness, nausea, or vomiting, with ejections of bile, or matter, exhibiting a bilious appearance, difficulty of breathing, thirst, and furred tongue.

TREATMENT. — Give an emetic of Ipecac, (No. 42;) one hour after this has ceased to operate, give a tea-spoonful, or thirty grains of Calomel and Jalap, (No. 39;) if the skin is dry, give six grains of Fever Powder, (No. 38,) every three hours. During the remission, give one to three grains of Quinine, (No. 41,) every two or three hours, which may prevent the return of the fever. Should

inflammation of the brain, bowels, or chest occur, apply mustard poultices to the feet, and a blister, six by eight inches between the shoulders. The nourishment should consist of nothing more than gruel, toast water, barley water, and rice water, or some other liquid vegetable substance. This fever generally runs from five or six to fourteen days, before symptoms of recovery take place.

Bathing the body, when the heat is very great, with weak ley water, warm or cold, as the patient desires. In doing this, place the vessel containing the ley water, by the side of the bed, then, raising the clothes with one hand, with the other rub the body from the neck to the feet, with a piece of flannel, or sponge, wet with the liquid. This process should be employed when the sensations of heat are violent and the skin dry; the most salutary effects will result from this treatment.

Yellow Fever.

SYMPTOMS. — The first attack of yellow fever does not differ materially from the symptoms which attend the commencement of all fevers. A sudden loss of strength, and a constant restlessness, will generally be felt a day or two before a complete fever is formed; though this is not always the case. Faintness, dizziness, chilliness, and shuddering; then soon follows great heat, dryness of the skin, difficulty of breathing, violent headache, pains in the back and limbs, a quick and full pulse, a sickish, sinking sensation at the bottom of the stomach, and the tongue is generally very red at the end. These symptoms last from two to three days before any abatement

takes place, when a new change will commence; the patient then becomes more comfortable for a few hours, then the eyes and skin assume a yellowish cast, and great discharges of bile take place from the stomach, and sometimes from the bowels; the bile will sometimes be of a natural, but oftener of a greenish, or black color; the tongue will be, in some cases, dry and black, or yellow, and at others, moist. The vomiting of a black matter, resembling coffee grounds, is a distinguishing symptom of this disease. The yellow color of the skin is also a peculiar symptom, but not quite so constant. These two symptoms render this disease sufficiently remarkable, that it cannot be mistaken for other fevers. In some cases, a copious perspiration puts an end to the disease, and in other cases, sleep, bleeding from the nose, or a looseness of the bowels. The unfavorable appearances are, a sinking of the pulse, cold, clammy sweats, a constant retching, without being able to vomit, torpor of the brain, hollow, sunken eyes, oozing of blood from the mouth and nostrils, and twitching of the muscles. It sometimes proves fatal in twenty-four hours. In hot climates, it terminates in four or five days.

TREATMENT. — Cover the patient with warm clothing, and give a dose of Calomel and Jalap, (No. 39,) or from fifteen to twenty-five grains Calomel, (No. 43,) to be followed in two or three hours by two ounces (half a gill) of Castor Oil, (No. 33.) Give a plenty of warm herb tea, such as boneset, catnip, pennyroyal, or sage, to promote perspiration. In case the medicine is vomited up, let the stomach be cleansed out by warm water, or boneset tea. Calomel alone, will often remain on the stomach,

when, if combined with jalap or rhubarb, it will be rejected. The bowels should be thoroughly evacuated with an injection of the following enema: one table-spoonful of common salt, two table-spoonfuls each of sweet oil and molasses, and one pint of warm water, mixed. After the bowels are relieved, use all possible means to promote perspiration, as this is almost a certainty of relief. If the skin remains hot and dry, bathe the feet and legs in warm ley water, and give warm herb tea, or lemonade, which will produce perspiration, and must be continued until the fever has entirely abated. Should the head be oppressed, apply a small blister behind the ears, or between the shoulders. A mustard poultice, applied to the pit of the stomach, will allay the irritation of the stomach; if this does not give relief, dissolve a tea-spoonful of Bi-carbonate of Soda, (No. 8,) or Saleratus, in a tumbler of cold water, and give half a wine-glassful every half hour, or half a cupful of Camomile Tea, (No. 5.) Patients can seldom eat any thing in this fever; but should they desire it, give Indian meal gruel, arrow root, barley water, boiled rice, beef tea, &c.

Scarlet Fever.

SYMPTOMS. — This fever commences with chills and shivering, like other fevers; with nausea, sometimes vomiting, great sickness, succeeded by heat, thirst, and headache, sometimes mild, at others violent. The pulse is very quick, numbering one hundred and twenty or thirty beats in a minute. This fever may be distinguished from the *measles*, by the eruptions being more of a fiery

redness, and diffused over the whole body, and not as in measles, in distinct spots; nor is it accompanied with cough, watery eyes, running at the nose, and sneezing. On the second or third day, the eruption will make its appearance, and will disappear about the seventh day. If the throat is not very sore, and the eruption comes out well, it is a favorable symptom. In case the disease exhibits a sinking character, with dark colored ulcers in the throat, it is a dangerous symptom, and the strength of the patient should be supported by nourishing food and stimulants.

TREATMENT. — When the symptoms of this fever makes its appearance, it is essential that the patient should bathe the feet and hands in hot water, to which may be added a little mustard, cayenne, salt, or some stimulating herbs; this bath should be continued from fifteen to thirty minutes, two or three times a day, for two or three days. If the head is affected, apply mustard poultices to the feet, of sufficient strength to cause some degree of smarting. As the disease advances, if the heat be great, stimulating applications should be omitted. During the cold stage, warm drinks, such as saffron, pennyroyal, or catnip tea, should be freely given, to promote perspiration. Should the patient feel sick at the stomach, give an emetic of Ipecac, (No. 42,) or boneset tea; if the bowels are costive, give a small dose of Castor Oil, (No. 33,) or Calcined Magnesia, (No. 46,) Powdered Rhubarb, (No. 45,) Epsom Salts, (No. 3,) or some other gentle physic. If the patient suffers much from thirst, give thin gruel, rice water, or flaxseed tea, with a tea-spoonful of cream of tartar to a pint of the

tea, and sweeten to the taste. To relieve the soreness of the throat, take two tea-spoonfuls of Elixir Vitriol, (No. 15,) put it in a tumbler of water, and use as a gargle. For an external application, use Volatile Liniment, (No. 32.)

Inflammatory Fever.

This fever is characterized by great inflammation, intense heat, frequent, strong, and hard pulse, flushed countenance, redness of the face, &c. It may be readily distinguished from typhus, by its being attended with symptoms much more inflammatory. It makes its attack at all seasons of the year, but is most prevalent in the spring. Persons of all ages and habits are subject to it, but more especially those in the vigor of life, with strong, elastic fibres and plethoric constitutions. It is a species of fever almost peculiar to cold and temperate climates, being rarely met with in warm ones.

SYMPTOMS. — The fever comes on with chills, lassitude, and pain in the head, back, and all parts of the body, with more or less affection of the stomach. In the progress of the fever, the thirst becomes extreme, the breathing difficult, and the patient uncommonly restless, the skin dry and parched, the eyes inflamed, tongue furred, with white in the centre, and of a scarlet color at the sides. There is the greatest commotion in body and mind, and a high degree of gastric affection. If blood is drawn, it exhibits a sizzly crust, of uncommon thickness. Delirium is constant in the advanced stage of the disease.

TREATMENT. — Blood must be taken from the arm from a large orifice, to the extent of a pint to a pint and a half; should the inflammatory symptoms continue, a second bleeding will be necessary. The bowels should be opened by a full dose of Epsom Salts, (No. 3.) If the system is somewhat reduced, give ten grains of Calomel, (No. 43,) instead of Salts. To relieve fever, and produce sweat, dissolve two grains of Tartar Emetic, (No. 48,) in one half a pint of water, and give a table-spoonful every two hours. Cloths, dipped in cold vinegar and water, should be applied to the head, a blister to the nape of the neck, and mustard plasters to the feet. If any organ in particular should be attacked, let a blister be applied over the part. The patient should keep as cool and quiet as possible, and the diet should be of the lightest kind.

Slow, Nervous, or Typhus Fever. **(Typhus Mitior.)**

This fever is distinguished from other kinds of fevers by its effects on the nervous system. It may readily be distinguished from inflammatory fever by the smallness of the pulse, the torpid state of the brain, attended with great prostration of muscular power.

SYMPTOMS. — An attack of this fever generally steals on by degrees. The patient is often indisposed for some days before all the symptoms disclose themselves. Unlike the continued and inflammatory fevers, there is no redness of the face, or fulness of the blood vessels of the head; the face is pallid and sunk, the eyes are dull and

heavy; there is some chilliness, but not amounting to rigor, and this is not followed by a hot fit, as in inflammatory fever; the patient loathes food, feels dejected, sighs, faints on trying to sit up, and in the course of a few days breathes with difficulty; there is great depression and loss of strength, the head aches, the tongue is dry, and covered with a dark-brown fur, the pulse is quick, small, and low, the teeth are coated with a dark-brown crust; the palms of the hands are hot, while the back of the hands and the forehead are covered with a cold, clammy sweat. Stupor, and a low muttering delirium, are constant symptoms. As the fever progresses, the patient constantly picks at the bed clothes. He is commonly worse in the evening, and more comfortable in the morning.

TREATMENT. — In the commencement of this fever, give an emetic of Ipecac, (No. 42,) and about an hour after the emetic has operated, give a dose of Purging Pills, (No. 34,) Salts, (No. 3,) or Castor Oil, (No. 33.) Give a tea-spoonful of Spirits of Nitre, (No. 19,) every three hours, in a little water. If the patient gets but little sleep, give a Dover's Powder, (No. 40,) early in the evening. Where there is much anxiety of mind, tremors, and spasms of the muscles, give sixty drops of Ether, (No. 21,) thirty drops of Spirits of Camphor, (No. 25,) and twenty drops of Spirits of Hartshorn, (No. 26,) every two or three hours; ten grains of Dover's Powder, (No. 40,) may be given every six or eight hours. The bowels should be kept open daily by injections. Bathing the body with cold water, is a safe and powerful

means of relief. The body of the patient should be washed all over, two or three times a day, or oftener, if the fever is high. This may be done with a cloth or a sponge. Water may be poured on the head and face for two or three minutes at a time, or even upon the whole body. This, however, should never be done when there is any degree of chilliness, or a general sweat. The patient should be kept as quiet as possible, both in mind and body. His diet should be rice water, bread water, arrow root, and milk and water. Lemonade, or Cream of Tartar water, sweetened, may be freely used. Should the system appear to be sinking, a moderate quantity of wine, and a more nutritious diet must be used. Half a pint, or a pint a day, is often required to enable the patient to survive the disease. Madeira is the most suitable. Port is the next best. It should always be given in water, or in the form of wine whey. If a severe purging takes place, give a powder, containing two grains of Camphor, (No. 57,) one of Ipecac, (No. 42,) and half a grain of opium, every two hours, till it is checked. Fresh, pure air, and cleanliness are of the utmost importance; the clothes of the patient should be often changed, and all impure vessels immediately removed from the room. If this fever degenerates into the putrid form, with purple spots upon the skin, bleeding from the mouth, nose, or ears, &c., it will require the same remedies as the Typhus Gravior, or Putrid Fever. On recovery, give Quinine, from half to one grain, (No. 41,) with five or ten drops of Elixir Vitriol, (No. 15,) three times a day.

Putrid, Malignant, or Ship Fever. (Typhus Gravior.)

This fever derives its name from the putrescent and malignant character with which it is attended, especially in the latter stages of it. It may be distinguished from the mild typhus, by the great violence and suddenness of the attack, and from the inflammatory fever, by the smallness of the pulse, the sudden and great debility in its commencement, the brown or black tongue, the foul matter about the teeth, and, in the advancing stages, purple spots, which appear in various parts of the body; fetid stools, &c., &c.

SYMPTOMS. — At the first onset of this disease, there is an amazing loss of strength, and depression of spirits; a great sense of weariness; heavy, deep pains in the head and back; dry, parched tongue, beating of the temporal arteries, trembling of the muscles, and a universal feeling of cold. The eyes are dull and heavy, the urine pale, and the pulse small, hard, and quick, sometimes irregular, beating from one hundred to one hundred and thirty times in a minute. There is often great heat, oppression, and pain at the pit of the stomach. But the leading symptom is stupor, — a deep, heavy drowsiness. As the disease progresses, the tongue, mouth, teeth, and even the lips, will be covered by a black, thick coat. Muttering, moaning, and delirium, will arise as the disease advances, and the thirst, and heat of the skin increase, until symptoms of putrefaction appear. At this period, the breath becomes offensive, and bleeding will often take place spontaneously, from the nose, mouth, and

gums; the urine and stools will pass off involuntarily, and dark, purple spots appear on the skin. Finally, the pulse sinks, hiccough comes on, and the patient soon dies.

TREATMENT. — The indication of cure in putrid fever, is to arrest it as speedily as possible, in order to prevent the fluids from running into a state of putrefaction. An emetic of Ipecac, (No. 42,) should be given immediately, followed by a dose of Purging Pills, (No. 34.) The pills should be repeated as often as circumstances may require, or the bowels may be kept open by Rhubarb, (No. 45,) or Castor Oil, (No. 33.) If the skin is hot and dry, the patient should be sponged all over with cold water. He should be kept perfectly quiet both in body and mind. In many cases, tepid bathing will be preferable to cold. Effervescing draughts are very beneficial in this disease, as bi-carbonate of soda, fifteen or twenty grains, tartaric acid, from twelve to fifteen grains, mixed in half a tumbler of water, and drank during effervescence; this may be repeated every two or three hours. Mustard poultices may be applied to the stomach or head, where either of these organs is unduly affected. The drinks should be cold water, lemonade, or fifteen drops of elixir of vitriol to a tumbler of water. When there is great restlessness and want of sleep, ten grains of Dover's Powder, (No. 40,) should be given at night. The patient is to be supported by rice, arrow root, or gruel, and a moderate quantity of wine, according to the degree of debility. He should be lightly covered with bed clothes; his sheets and apparel frequently changed; the evacuations immediately removed, and none but necessary attendants

admitted to see him. The apartment should be freely ventilated, leaving open, day and night, every avenue to a free circulation of air, securing the patient, however, from a *current* of cold or damp air.

Measles.

SYMPTOMS. — Measles is a catarrhal, eruptive fever, of a peculiar character and limited duration, which affects the same individual but once. It makes its attack very much in the same manner as a common cold. There is a harsh, dry cough, often somewhat like that of croup; hoarseness, and difficult respiration; the eyes are inflamed, the lips swollen, and a running from the nose. In a few days the eruption makes its appearance; usually on the fourth day. By examining the mouth, red spots may be seen upon the roof before they appear upon the skin; they next appear upon the head and face, and in the course of two days extend over the whole body and limbs. In the next twenty-four hours they run together, beginning at the head, and the disease comes to a crisis.

TREATMENT. — During the first stage of the complaint, the symptoms may be mitigated by bathing the feet once or twice a day in warm ley water, and by a free use of warm and sweating drinks, such as molasses and water, balm, pennyroyal, flax seed, or slippery elm. If the rash does not appear in due season, a strong mustard bath, followed by mustard, or some other stimulating poultices, to the feet; saffron, summer savory, or pennyroyal tea, should be drank freely. If a difficulty of breathing, and oppression at the stomach, apply a strong

mustard poultice to the chest. After these applications, move the bowels with a dose of Castor Oil, (No. 33,) or some other gentle cathartic, will be all that is necessary in ordinary cases. As the eyes are always more or less inflamed, the room should be darkened, and the eyes bathed in cold, soft water, or green tea.

Small Pox.

SYMPTOMS. — This disease makes its attack very much like other inflammatory diseases ; with pains in the head, back, loins, and bones, faintness, loss of strength, weariness, redness of the eyes, ague fits, thirst, quick pulse, sickness at the stomach, and sore throat. The pustules begin to show themselves on the third and fourth day. They appear first in little red spots upon the face, neck, and breast ; they continue to increase in size and numbers for three or four days, when they are found to extend over the whole body. Sometimes the disease is very light, and the fever hardly noticeable. It is seldom that any two persons have this disease alike. There are two grades of the small pox ; one is comparatively mild, consisting of separate pustules, which is called the *distinct* ; the other, the pustules run together and form one widespread eruption, and is called the *confluent*.

In the distinct small pox, the pustules reach their full size about the fifth or sixth day, when they begin to suppurate. Before this period, they contain only lymph, or watery matter. The maturation of the pustules is completed on the eighth or ninth day from their first appear-

ance, and about the eleventh day they form a scab, and fall off. In the distinct kind of the eruptions, the fever usually subsides on the appearance of the pustules; but in the confluent, the fever may undergo a little abatement when the pustules appear, but does not go off. The disease in children is commonly ushered in by convulsion fits. The most critical period in the confluent small pox is the maturation of the pustules, when the fever returns with renewed strength. This is termed the *secondary fever*, and is always attended with danger. The distinct small pox is not dangerous, unless the eruptive fever runs very high. After a person has imbibed the contagion of small pox, the disease usually makes its appearance about the fourteenth day; in some instances, as early as the sixth day, and in others, not before three weeks.

TREATMENT. — If a person has been exposed to this disease, they should be immediately vaccinated; as this will, in many instances, prevent the disease, and in all instances be likely to render it more mild, if the contagion has entered the system too deeply to be subdued. The person should at the same time live upon a light, vegetable diet, use no stimulating drinks, or heating things, and keep the blood as cool as possible, by exposure to cold air, and the use of some cooling cathartics, such as salts, or cream of tartar, taken every day, in sufficient quantities to move the bowels. It will be necessary to abstain from all heavy work, and avoid the heat of the sun. The cooler they keep themselves, without being chilly, the better. Acid drinks, such as barberry water, lemonade, vinegar and water, cream of tartar water, have a tendency

to prevent the violence of the fever. The same system, more rigidly enforced, must be pursued after the contagion has taken effect, and the fever has commenced. Where there is much heat, dryness of the skin, and sickness at the stomach, thirty grains, (even tea-spoonful) Ipecac, (No. 42,) should be given. An emetic will favor the full and early eruption of the pustules. In warm weather the room should be cool; the body sponged with cold water every day, and none but cool drinks should be given. In case the patient does not sleep well, the fever high, and pustules numerous, give a tea-spoonful of Spirits Nitre, (No. 19,) or eight grains sal nitre every three hours. If the head and face are much swollen, and the eruptions thick, dip a piece of lint in a weak solution of Sugar of Lead, (No. 51,) or White Vitriol, (No. 52,) and lay upon them. The scab may be kept soft by the application of sweet oil, or Simple Cerate, (No. 12.) If the system becomes exhausted under the agitation and violence of the disease, give from forty to sixty drops of Laudanum, (No. 16.) Rally the strength by giving Tincture of Bark, (No. 28,) or a tea-spoonful of Ether, (No. 21,) in a little wine or sweetened water, every two hours. If diarrhœa presents itself, give Laudanum, (No. 16,) using care not to check it too suddenly. Use as a gargle, water, made pretty acid with Elixir Vitriol, (No. 15,) or Alum, (No. 56,) dissolved in water.

Erysipelas, or St. Anthony's Fire.

Erysipelas is characterized by a diffused redness of the skin, a burning or itching pain, and frequently with vesi-

cations and fever. In mild cases, it is preceded by a slight indisposition, languor, restlessness, loss of appetite, &c. In more severe cases, the patient experiences for a couple of days before the erysipelas breaks out, unusual debility, pains in the limbs, headache, loss of appetite, vomiting, oppression about the chest, &c., &c. Where it attacks the face, there is great redness of the face and scalp, and the swelling is in some cases so great as to close the eyes. About the third or fourth day small pimples or blisters appear, filled with a transparent, watery fluid. By the eighth or ninth day, the disease comes to its height, and the blistered parts begin to dry and scale off. The fever now subsides, and recovery commences. This disease seldom proves fatal, except where it prevails as a malignant epidemic, or follows large wounds, and surgical operations.

TREATMENT. — In mild cases, where it is confined to red blotches on the skin, a gentle emetic of Ipecac, (No. 42,) followed by a dose or two of Salts, (No. 3,) with lemonade, will be all the medicine necessary. Stimulating food and drink must be avoided. In severe cases, more active means are required. The bowels must be kept open with Salts, (No. 3;) one grain of Tartar Emetic, (No. 48,) may be given to operate on the stomach and bowels; after it, one of the Fever Powders, (No. 38,) may be given every two hours. A wash may be made by dissolving one drachm of Sugar of Lead, (No. 51,) in a pint of water, or linen cloths, dipped in diluted alcohol, may be kept on the parts affected. Acid drinks may be given to allay the thirst. A narrow blister, covering partly the sound and partly the diseased surface, is some-

times used to prevent the spreading of the inflammation. Lunar Caustic, drawn over the sound and diseased surface, about an inch in width, may be used for the same purpose. When erysipelas attacks a wound, the symptoms become very alarming. Should the fever assume the typhoid form, wine, quinine, opium, &c., must be used, as directed under the head of Typhus Fever.

Nettle Rash.

This disease is an eruption of wheals or blotches on the skin, sometimes attended with fever. It shows itself in elevated red spots, or ridges, often whitish on the top, (and in this state is sometimes called the hives,) which itch and sting as if pricked with a nettle. The eruption will appear in any part of the body, but does not stay long in any one place. In some instances it will last only four or five days, and in others for several weeks, or months. It will often entirely disappear in the day time, and reappear in the evening, attended with febrile symptoms. Certain kinds of fish, when eaten, will produce a disease which very much resembles it, such as the sea-crab and lobster, or a disordered state of the digestive organs.

If the skin becomes very much irritated and fiery, it should be washed with diluted alcohol; and if there are feverish symptoms, sweet Spirits of Nitre, (No. 19,) or a gentle emetic should be taken. A dose or two of Salts, (No. 3,) or Cream of Tartar, (No. 2,) will commonly be all the medicine necessary. Lemonade, or soda powders, drank every day, with a light, cooling diet, will abate the heat, and counteract the itching.

Apoplexy.

SYMPTOMS. — Usually, in a fit of the apoplexy, the person falls down, and becomes insensible; the face is red and swollen, the eyelids are half closed, and the eyes fixed, and the veins of the temple and neck are enlarged and full of blood. Violent headache, loss of sight, and sometimes palsy, generally precede this disease. The pulse, in most cases, full and strong. Apoplexy may be distinguished from fainting by the continuance of the pulse and breathing.

TREATMENT. — Loosen the clothes of the patient, especially those about the neck. If the person is of a robust constitution, bleed from the arm to the extent of one to two pints, apply cold baths to the head, and warm water, or mustard poultices, to the feet and wrists. If the patient can swallow, give a tea-spoonful of Calomel and Jalap, (No. 39,) or two table-spoonfuls of Castor Oil, (No. 33,); a free evacuation of the bowels should be procured. If unable to swallow, give an injection of warm soap suds, with a table-spoonful of Spirits Turpentine added to it. If the fit has come on just after a full meal, an emetic of Ipecac, (No. 42,) should be given, to remove the pressure upon the stomach, and to relieve the digestive organs.

Coughs and Colds.

It is hardly necessary to give the symptoms of colds, as almost every person has been troubled with them more or less. A cold, however slight, should never be neg-

lected, or it may lay the foundation for a fatal consumption.

TREATMENT. — Avoid exposure to the external atmosphere; keep warmly clothed, and let the diet be light. Bathe the feet and legs in warm ley water before going to bed, and drink freely of warm flaxseed tea, boneset tea, or lemonade, with a dose of Salts, (No. 3,) the morning following. If there be soreness of the throat, bathe it with the Volatile Liniment, (No. 32.) Should these means not prove sufficient, give an Emetic, (No. 48,) and one of the Fever Powders, (No. 38,) every three or four hours. Should a cough be troublesome, give a tea-spoonful of the Cough Drops, (see Recipe,) every three or four hours.

Pleurisy.

SYMPTOMS. — This disease is characterized by cold chills, acute pains in one side of the chest, which are increased by coughing, or drawing a long breath; the tongue coated, pulse quick and hard, skin hot, and the cheeks flushed. The pain is severe when lying on the side affected.

TREATMENT. — Bleed the patient in the arm from a large orifice, in a sufficient quantity to relieve the pain and difficulty of breathing. The blood will, after standing a little while, have a yellow scum form upon the surface. Give a dose of Salts, (No. 3,) or Castor Oil, (No. 33,) to move the bowels. Dissolve two grains of Tartar Emetic, (No. 48,) in a tumbler of hot water; give a table-spoonful every hour or two hours, which will

abate the cough and fever. If the disease continues to be obstinate, apply a blister over the seat of pains. Relief is sometimes obtained by means of mustard poultices; and take every six or eight hours, ten grains of Dover's Powder, (No. 40.) Use flaxseed tea as a drink. The diet should consist of gruel and toast-water during the continuance of the fever. The cough should be relieved by the Cough Drops, (see Recipes.)

Asthma.

Is characterized by frequent, difficult, and short respiration, wheezing, stricture of the chest, and a cough; all of which symptoms are aggravated when in a recumbent position. When there is a great discharge of mucus from the lungs, it is termed humid; but when it is attended by little or no expectoration, it is termed the dry or spasmodic asthma.

SYMPTOMS. — An attack of asthma is generally preceded by uneasiness about the chest, and disturbed sensation of the stomach. It most commonly occurs at night, and the patient is perhaps awakened out of his sleep by it. He is obliged to rise from his bed and seek fresh air. The breathing increases in difficulty and is performed with a wheezing noise, and he gasps for breath, as though life was almost extinct. An attack of asthma, although alarming at the time, is not a dangerous disease, but it subjects the person to returns more or less frequent during after-life.

TREATMENT. — Begin with an emetic of Ipecac, (No 42.) The bowels should be kept open by Castor Oil,

(No. 33,) or Salts, (No. 3.) Burning in the room a piece of paper soaked in a solution of saltpetre, and dried by the fire, will often afford instant relief. A tea-spoonful of Ether, (No. 21,) mixed with twenty drops of Laudanum, (No. 16,) in a wineglass of water, and given every four or six hours, greatly relieves the patient. This should not be repeated more than three times without an interval of eight hours; or a Fever Powder, (No. 38,) may be given every four hours. The diet should be light and easy of digestion, and spirituous and fermented liquors should be avoided.

Vomiting.

If it arises from a disordered state of the stomach, improper diet, &c., assist it by giving an emetic of Ipecac, (No. 42,) with copious draughts of warm water. If from a sour stomach, give a tea-spoonful of Magnesia, (No. 46,) or Bi-carbonate Soda, (No. 8,) in a little water. If it should be caused by inflammation of the stomach or bowels, the patient should be treated for such, and the vomiting will cease. If there be inflammation or indigestible food on the stomach, a mustard plaster may be applied, and if relief does not follow, apply a blister. Give soda water made from Tartaric Acid, (No. 54,) and Bi-carbonate Soda, (No. 8,) in small quantities.

Epileptic Fits.

The epileptic fit occurs suddenly; the person falls to the ground and loses all consciousness. The muscles

are violently agitated and convulsed, the eyes are fixed and distorted, there is foaming at the mouth, the tongue is thrust out and wounded by the teeth, the pulse is small and contracted. During the fit the convulsive agitations of the body are so violent, that it requires the strength of two or three men to prevent the patient from doing injury to himself. Frequently there will be a cessation of the convulsions, but they soon return with as much violence as ever, and will continue to come and go for a number of times in succession, when they will cease altogether. The patient passes from the fit into a deep sleep, and on awakening has no recollection of what has happened, but feels heavy and stupid.

TREATMENT. — Place the patient in a cool, airy situation, with his head raised; his clothing should be loosened, and a soft piece of wood placed between the teeth to guard the tongue from injury. Cold water should be dashed with considerable force upon his face, neck, and chest. As soon as the patient can swallow, an emetic of Ipecac, (No. 42,) should be given, followed by plentiful draughts of warm water. The disease is often preceded by a peculiar sensation of cold commencing in one of the arms or legs, and creeping along until it reaches the head, when the patient becomes insensible and falls into a fit. When the sensation is first felt, a string or handkerchief should be put tight round the limb in the same manner as directed under the head of Amputation; the tight pressure need not be continued more than a minute or two. It is stated by some, that patients have thus averted the fits for months, who without it were attacked three or four times a week.

Jaundice.

Jaundice is denoted by the yellow tinge of the skin, and especially of the whites of the eyes, sleepiness, loss of appetite, loathing of food, vomiting, the stools of a clay color, disinclination to move about. A dull pain is felt in the right side, which is increased by pressure; the urine is high colored and will stain the linen yellow.

TREATMENT. — If the stomach is much disordered in the commencement of the disease, take a gentle emetic of Ipecac, (No. 42,) after the operation, and the stomach has become settled, give a dose of Purging Pills, (No. 34.) These may be repeated every night or every other night, so as to keep the bowels freely open. Moderate exercise, a vegetable diet, and abstinence from spirituous liquors, are to be observed.

Locked Jaw.

This disease occurs most frequently in hot climates, and is caused by exposure to cold, damp night air, and sudden changes in the weather. It is frequently caused by wounds, or injuries to a part in which a vein is irritated.

TREATMENT. — Opium is the chief remedy to be relied upon in this disease. Give a tea-spoonful of Laudanum, (No. 16,) every half hour, increasing the dose if necessary. Should the jaws be so locked the patient cannot swallow, administer two tea-spoonfuls every half hour in a clyster of warm water. The bowels should be opened by Castor Oil, (No. 33,) or Salts, (No. 3.) If he cannot

swallow, double the quantity may be given by injection. Brandy or wine may be freely used. If the disease proceed from a wound, open it freely, and apply hot drops or warm spirits of turpentine.

Itch.

The itch shows itself in small pimples on the wrists, between the fingers, in the bend of the arm, and under the knee joints. Mix sulphur and lard together so as to form an ointment, with which the parts affected are to be rubbed every night before a fire, taking at the same time internally one or two tea-spoonfuls of sulphur in molasses. Three or four applications are generally sufficient to cure this disease, after which the person should be well washed with warm water and soap, and the clothes thoroughly cleansed.

Vermin.

Lice, or crabs, may be destroyed by rubbing upon the parts a small piece of Mercurial Ointment, (No. 10.)

Piles.

These are small tumors, varying in form and size, situated about the verge of the anus, or fundament; they are external and internal, and are of two kinds, the blind and bleeding. The piles are generally caused by costiveness, strong aloetic purgatives, an inactive, sedentary life.

TREATMENT. — For the blind piles, keep the bowels regular with equal parts of Sulphur, (No. 1,) and Cream Tartar, (No. 2,) or Castor Oil, (No. 33.) As an external application, the parts may be anointed with an ointment made by mixing half a drachm of Sugar of Lead, (No. 51,) and half a drachm of powdered opium with one ounce of lard, every night and morning. For the bleeding piles, use injections of cold water, or apply a strong solution of alum to the fundament or pressure upon the part. Twenty drops of Elixir Vitriol, (No. 15,) may be taken night and morning in sweetened water.

Scurvy.

This disease comes on gradually, with lassitude, indisposition to exertion, low spirits, and loss of strength. As it advances, the countenance becomes bloated and of a yellow appearance; the gums swell, are spongy, and bleed on the slightest pressure, and the teeth are loosened; the breath becomes offensive, livid spots appear on the skin, wandering pains are felt in the bones, and the bowels are obstinately costive, or the stools are frequent and costive. In a more advanced stage of the disease, emaciation increases, the limbs become useless, faintness follows every effort, blood is discharged from different parts of the body, and death approaches slowly, or comes suddenly in the attempts to make exertion.

TREATMENT. — In the treatment of scurvy much more is to be done by diet, habits, &c., than by medicine. As far as possible, cleanliness and dry clothes should be aimed at by all seamen. Even when they are obliged to

live upon tainted provisions and bad water, the disease will make much less progress, if the skin be kept clean, dry, and comfortably warm. As soon as a sailor is found to be laboring under the scurvy, it is indispensably necessary that he abstain from salted provisions ; as these, being the cause of the disease, will not fail to continue it. He should be supplied with fresh provisions, meat, &c., when they can be procured ; vegetables should be mixed with vinegar and partaken of freely. Fifteen or twenty drops of Elixir Vitriol, (No. 15,) with one grain of Quinine (No. 41) mixed in a glass of water should be taken three times a day. Sour drinks made from lemons, cream of tartar, or elixir of vitriol are very serviceable. From two to four ounces of Nitre, (No. 50,) dissolved in a quart of vinegar, and a table-spoonful given three times a day has often been attended with the happiest effects. For sponginess of the gums, make a wash of two tea-spoonfuls of Tincture Myrrh, (No. 44,) to half a pint of water slightly acidulated with elixir vitriol. To remove stiffness of the joints and swellings, bathe with warm vinegar, use hot fomentations, and rub with flannel ; and to alleviate pains, use opium.

Diarrhœa.

This disease is characterized by frequent discharges from the bowels, often thin and watery, with more or less pain preceding and accompanying each evacuation.

TREATMENT. — When it is produced by improper food, it will be necessary to give an emetic of Ipecac, (No. 42,) after which a dose of Rhubarb, (No. 45,) or Castor Oil,

(No. 33.) If it proceed from any other cause, give half an Opium Pill, (No. 37,) every two or three hours, or two tea-spoonfuls of Paregoric, (No. 14.) Twenty grains of Rhubarb, (No. 45,) and a heaping tea-spoonful of Magnesia, (No. 46,) with forty drops of Essence of Peppermint, (No. 18,) in a little water, will most generally check a common diarrhœa. The diet should consist of gruel, arrow root, rice, &c. No solid food should be taken until the complaint is cured. In most cases a milk porridge made of wheat flour will be sufficiently nourishing, and well suited to the diseased state of the bowels. In severe cases it is best to check the complaint entirely by opiates, taking care to procure a motion of the bowels every other day by a dose of castor oil. A table-spoonful of the following mixture taken every three or four hours is an excellent remedy for diarrhœa. Take of chalk mixture four ounces, tincture of kino or catechu, and tincture of cinnamon, of each half an ounce, laudanum one drachm. Mix, shake the bottle well before taking.

Dysentery.

SYMPTOMS. — An attack of dysentery is sometimes preceded by loss of appetite, costiveness, flatulence, sickness at the stomach, and a slight vomiting, and comes on with chill, succeeded by heat in the skin, and frequency of the pulse. These symptoms are in general, the forerunners of the griping, and increased evacuations which afterwards occur. The evacuations vary both in color and consistence, being sometimes composed of frothy

mucus, streaked with blood, and at other times of an acrid watery humor, like the washings of meat, and with a very fetid smell. Sometimes pure blood is voided; now and then lumps of coagulated mucus, resembling bits of cheese, are to be observed in the evacuations. From the violent efforts which are made to discharge the irritating matter, a portion of the gut is sometimes forced beyond the rectum, which proves a troublesome and distressing symptom.

TREATMENT. — An ounce of Castor Oil, (No. 33,) and forty drops of Laudanum, (No. 16,) given two or three times in the course of twenty-four hours; if the bowels are not sufficiently emptied, and the pain allayed by the first or second dose, give forty drops of laudanum mixed with thirty grains of Ipecac, (No. 42,) and ten grains of Calomel, (No. 43.) A quarter of a grain of Tartar Emetic, (No. 48,) dissolved in water and given every hour, will often empty the bowels more easily than any other cathartic. Thirty drops of Wine of Antimony, (No. 29,) will have the same effect. Small doses of Ipecac (one grain) every two hours will often give relief. In case of great pain, apply warm fomentations to the stomach. Injections of starch water and laudanum should be administered (when pain exists in the lower part of the bowels with frequent stools) in proportion of two tea-spoonfuls of laudanum to a gill of starch water made a little warm. The diet should be light, and the drink should consist of flour gruel, rice water, or barley water.

Cholera Morbus.

SYMPTOMS. — This complaint generally comes on very suddenly. It usually commences with nausea and pain in the stomach, followed by severe griping and distress in the abdomen. These symptoms are immediately succeeded by vomiting and purging, which generally continue in paroxysms until great prostration follows.

TREATMENT. — Give several draughts of warm water, flaxseed tea or rice water, at the commencement of vomiting and purging, in order to remove all the solid contents of the stomach and bowels; apply hot mustard seed poultices over the pit of the stomach. After making use of the above, take one tea-spoonful Bi Carb. Soda, (No. 8,) or saleratus, one tea-spoonful, Powdered Rhubarb, (No. 45,) two tea-spoonfuls; one tea-spoonful cayenne, or two of ginger; essence of peppermint, half a wineglass; warm water, half a pint, and take a table-spoonful every hour until the evacuations show an improved appearance, when the dose may be diminished. If the bowels continue relaxed, add a few drops Laudanum, (No. 16,) to each dose. The cause of this complaint is exposure to extreme heat, and sudden checking of perspiration. Also unripe fruit, shell fish, &c.

Asiatic Cholera.

SYMPTOMS. — This disease when fully established is almost invariably fatal. It generally commences with a diarrhœa, accompanied with little or no pain; this may continue for three or four days, but often only for a few

hours, when the patient is suddenly attacked with vomiting and purging of a thin fluid, resembling rice water. Then follow violent and painful spasms of the legs, arms, and chest. The countenance looks ghastly, the eyes are sunk in their sockets, the lips and cheeks become blue or lead colored, and the extremities and surface cold and livid. The pulse is feeble or imperceptible, there is a rapid sinking of the strength, and the patient falls into a **hopeless state of collapse.**

TREATMENT. — During the prevalence of this terrible disease, too much care and attention cannot be paid to the state of the stomach and bowels; strong purgative medicines of all kinds should be avoided, and strict attention paid to personal cleanliness; avoid fatigue and anxiety of mind. The diet should be nutritious and easy to digest, and that chiefly animal. The cholera must be cured before the collapsed stage sets in, by prompt and active means. In the early stage of the diarrhœa, which is the premonitory symptom of cholera, give two Opium Pills, (No. 37,) and repeat one pill every half hour until the patient is relieved, to be followed in six or eight hours by a dose of Castor Oil, (No. 33,) with twenty drops of Laudanum, (No. 16.) Should the disease already have made some progress, the discharges become frequent, with vomiting and cramps; put the patient to bed, and keep him perfectly quiet; give him immediately two Opium Pills, (No. 37,) with one tea-spoonful of the following drops. Take of Laudanum, (No. 16,) Spirits Camphor, (No. 25,) Essence Peppermint, (No. 18,) Sulphuric Ether, (No. 21,) of each half an ounce, hot drops one ounce, or one tea-spoonful of cayenne pepper; mix, repeat the

drops every hour, or half hour if the pain is severe. Let his whole body be freely rubbed with cayenne pepper moistened with spirits, until the skin is reddened. Apply mustard plasters to the stomach and bowels, and bathe the legs and feet in warm water. When the irritability of the stomach is great, soda water made with Bi Carb. Soda, (No. 8,) and Tartaric Acid, (No. 54,) in small quantities will sometimes check the vomiting. If the patient throws up the medicine, give two tea-spoonfuls of laudanum by injection, mixed with a small quantity of flax seed tea or starch water. Give all the remedies used, in as little bulk as possible. In some cases, from twenty-four to thirty hours after the stage of collapse, reaction takes place, and a febrile condition ensues. There is in many cases a continued suppression of the urinary secretion, and the symptoms caused by this are at first excitement, and afterwards oppression of the functions of the brain. The skin is hot and dry, and the tongue dry, red, and glazed. This febrile stage does not always follow even severe cases of collapse, but does so frequently, and has often proved fatal after all danger has apparently passed. Should, however, the secondary fever follow, it will require attention, and every means must be used to restore the secretion of the kidneys. This is to be effected, first, by cupping, leeching, or blistering over their situation in the back, and by a moderate use of saline purgatives, and diuretics, as nitre and cream of tartar. Blistering also behind the ears, or on the neck, and between the shoulders, will be found of considerable use where the symptoms of disturbance of the brain are strongly marked.

Colic.

SYMPTOMS. — Pain in the bowels, with a twisting sensation at the navel, coming on in paroxysms, and a contraction of the muscles of the abdomen. Costiveness, sickness of the stomach, vomiting, bitter taste in the mouth. The pain is partially relieved by pressure, which distinguishes it from inflammation of the bowels.

TREATMENT. — Take two ounces (four table-spoonfuls) Castor Oil, (No. 33,) and thirty drops Laudanum, (No. 16,) or a tea-spoonful of Ether, (No. 21,) forty drops Laudanum, (No. 16,) and a tea-spoonful of Spirits Camphor, (No. 25,) mixed with a little sweetened water. A tea-spoonful of ginger or cayenne in a cupful of warm sweetened water will frequently give relief; also apply hot mustard poultices to the stomach and feet. This complaint is frequently brought on from eating unripe fruit, shell fish, and other food which is hard to digest. The patient should use caution in regard to diet, and eat such food as is easy to digest. After relief is obtained, a dose of Purging Pills, (No. 34,) or Castor Oil, (No. 33,) with half a tea-spoonful Essence Peppermint, (No. 18.) In case of acidity of the stomach, dissolve half a tea-spoonful of Bi-Carb. Soda, (No. 8,) or saleratus in half a wineglass of warm water, and drink.

Delirium Tremens.

This is what sailors term the horrors. The symptoms are an aberration or wandering of the mental faculties, trembling of the tendons and muscles, insomuch that the

person cannot raise a tumbler or cup to his mouth, without dropping it or spilling its contents, from the shaking of the hands. He is constantly seeing objects, and hearing sounds which do not exist. He fancies he sees insects on the wall and bed-clothes; sometimes he imagines he is pursued by evil spirits, and other strange objects.

TREATMENT. — If the patient be crazy, it will be necessary to have him secured, as he will be likely to injure himself, or some one else; perhaps commit suicide. Should there be a determination of blood to the head, which may be known by the redness of the countenance, a fulness and beating of the carotid arteries, heart, &c., the feet and legs should be bathed in a tub of warm ley water, and mustard plasters applied to the feet and nape of the neck. Give a dose of Calomel and Jalap, (No. 39,) or Purging Pills, (No. 34;) after its operation, should the symptoms continue, give three grains of opium every two or three hours till sleep is induced, or the patient is quieted. Upon recovery, give a tea-spoonful of Tincture of Bark, (No. 28,) three times a day.

Inflammation.

There are two descriptions of inflammation; one tends to suppuration, as the common boil, exhibits a brighter red color, more hardness or tension, heat, and swelling, than the other, and is distinguished by a throbbing instead of a burning pain, and does not spread unequally, but is limited to a circular or definite space. This is called phlegmonous inflammation. The other description of inflammation manifests a duller red color, a slight or scarcely

perceptible swelling, a burning pain spread in every direction, and ends in watery blisters and scales which peel or drop off. This is called erysipelatous inflammation, and the fever which attends it is generally typhus, or typhoid. It either subsides, or ends in blisters, scales, or gangrene.

Inflammation of the Brain.

SYMPTOMS.—This disease comes on with a violent, deep-seated pain in the head, inability to sleep, redness and swelling of the eyes and face, an intolerance of light and noise, and a raving delirium. The pulse is strong, hard, and quick, tongue furred, and a scantiness of the urine.

TREATMENT.—In no disease is bleeding of more importance than in inflammation of the brain. Let the opening of the vein be large, and bleed the patient until he almost faints. The head should be shaved, and cold water kept constantly applied to it, ice water if it can be obtained should be used. Open the bowels freely with Epsom Salts, (No. 3,) and give a table-spoonful of the following mixture every hour, until a moisture breaks out upon the skin. Take two grains Tartar Emetic, (No. 48,) one drachm Sal Nitre, (No. 50,) mix and dissolve in four ounces of water. The drink should be rice water, lemonade, or soda water. Should not this treatment subdue the violence of the symptoms, the bleeding must be repeated. The room should be kept perfectly quiet, cool, and darkened. After the violence of the disease has somewhat abated, a large blister should be applied to the nape of the neck, and repeated if relief is not procured by the first.

Inflammation of the Liver, or Liver Complaint.

This disease presents itself in two forms, acute and chronic. Acute is characterized by pain in the right side, below the chest, extending to the right shoulder. If the right side is pressed, a soreness is felt and the pain becomes sharp. The pulse is full, hard, and strong, the bowels costive, the stools are clay-colored, owing to the absence of bile which has ceased to flow. The urine, skin, and white of the eye, are of a deep yellow color. The perspiration will often stain the linen yellow. The tongue coated with a yellow fur, mouth dry, skin hot, and a constant thirst; sometimes there is sickness, vomiting, and prostration of strength.

In the chronic, the symptoms are the same, but less violent and longer in duration. The same treatment is necessary, but less active. Less blood should be taken, and less medicine used.

TREATMENT. — If the symptoms are severe, it will be necessary to bleed the patient, and give from ten to twenty grains of Calomel, (No. 43,) followed by one or two ounces of Salts, (No. 3.) Apply a blister or mustard plaster over the region of the liver where the pain exists. If the bowels remain costive, give a dose of Calomel and Jalap, (No. 39.) Take two Blue Pills, (No. 36,) at night, and one in the morning; if the mouth becomes slightly sore from the effects of the pills, give ten grains Dover's powder, night and morning. The bowels should be kept regular and the diet low. The chronic symptoms are

sallow complexion, costiveness, indigestion, pain in the stomach, flatulence, eye of a yellow tinge, stools of a bluish cast, urine highly colored, loss of appetite, a heavy, dull pain about the liver and right shoulder, and difficulty of breathing. Treatment is the same as the acute. Diet light, and avoid all stimulants. Gum arabic water, rice water, toast water, arrow root, and gruel may be freely used.

Inflammation of the Bowels or Intestines.

SYMPTOMS. — This disease is characterized by acute pain in the bowels, which is increased upon pressure, being the most severe about the navel; nausea, and sickness at the stomach, loss of strength, costiveness, great anxiety, thirst, heat, pulse is quick and hard, urine is highly colored. The evidences of mortification, are the ghastliness of the countenance, the pain ceases, sinking of the pulse, swelling of the belly.

TREATMENT. — Bleed from the arm as much as the strength of the patient will allow. Apply cloths dipped in hot water, also warm emollient poultices to the bowels. The feet should be frequently bathed in strong ley water. If leeches can be procured, apply a dozen or more to the abdomen. Give a dose of Calomel and Jalap, (No. 39,) or one or two table-spoonfuls of Castor Oil, (No. 33.) In case the medicine should be rejected by the stomach, it will be necessary to administer injections. Warm demulcent drinks should be used, such as flaxseed tea, gum arabic, slippery elm, or any other soothing mucilaginous drink. The bowels should be kept open by some mild

laxative, such as Seidlitz powder, or cream of tartar. After suitable evacuations of the bowels, if the patient should be very restless and unable to sleep, give a Dover's Powder, (No. 40.) The diet should be light, such as chicken broth and beef tea.

Inflammation of the Lungs.

This disease commences with an obtuse pain in the chest or side, great difficulty of breathing, (particularly when lying on the side affected,) together with a cough, dryness of the skin, anxiety, and thirst. The pulse is usually full, strong, hard, and frequent. In a more advanced stage it is commonly weak, soft, and often irregular. The cough is dry and without expectoration, but in some cases it is moist even from the first, but the matter spit up is various both in color and consistence, and is often streaked with blood. The symptoms of this disease resemble pleurisy, and the treatment is the same.

Rheumatism.

There are two forms of this disease, the acute and chronic. The acute begins with the ordinary symptoms of inflammatory fever, attended with pain in one or more of the large joints, shifting from one joint to another, leaving the part it has occupied red, swollen, and very tender to the touch. The fever is much increased towards evening, and during the night the pains are most severe.

TREATMENT. — After freely opening the bowels with

Epsom Salts, (No. 3,) Castor Oil, (No. 33,) or Purging Pills, (No. 34,) bathe the patient's feet in warm water, and give him a Dover's Powder, (No. 40,) every six hours, and a Fever Powder, (No. 38,) every three hours. The wine of colchicum seeds has been much extolled as a remedy, both in acute and chronic rheumatism. The following is the best way to administer it. Take of the wine of colchicum seeds three drachms, magnesia one drachm, epsom salts half an ounce, water four ounces; mix, give a table-spoonful every four hours. Another excellent remedy in this disease, is from five to ten grains of Iodide of Potassium, (No. 58,) in one table-spoonful of water three times a day. When the fever has subsided, rub the swollen and painful parts well with Soap Liniment, (No. 23,) or Anodyne Liniment. (See Recipes.)

Chronic Rheumatism.

This differs from the acute in not being attended with fever or much inflammation, and the pain being confined to some particular part; the joints are not so much swollen, and of a pale instead of reddish color, are cold and stiff, and difficult to make perspire, and are always comforted by warm applications.

TREATMENT. — The bowels must be kept open with Purging Pills, (No. 34,) and take eight grains of nitre every three hours. Bathe the parts well with volatile liniment, opodeldoc, or spirits of turpentine. If of long standing, the iodide of potassium may be used in doses of ten or fifteen grains twice a day. In acute rheumatism the diet should consist of gruel, arrow root, boiled

rice, &c. In the chronic, a heating or stimulating diet may be used. Cayenne pepper and mustard may be freely used with the food, also articles containing ginger. Flannel should be worn during the day, and taken off at night. Great care should be observed to prevent a check of perspiration from the changes of the weather, or other causes.

Quinsy, or Inflammatory Sore Throat.

SYMPTOMS.—This disease commences with a difficulty of swallowing, which is often effected with difficulty and pain. One or both the tonsils become swollen and inflamed, there is a dryness of the throat, foulness of the tongue, shooting pains in the parts affected, with some fever. As the disease advances, the difficulty of swallowing and breathing becomes greater, the speech is very indistinct, the dryness of the throat and thirst increases, the tongue swells and is incrustated with a dark fur, and the pulse is full, hard, and frequent.

TREATMENT.—Commence with an emetic, (No. 48,) then give a dose of Epsom Salts, (No. 3,) or Purging Pills, (No. 34,) bathe the throat well with volatile liniment. If the swelling increases, inhale the vapor of warm vinegar and water through the spout of a teapot. Gargle the throat with sage tea, with a little alum and nitre dissolved in it, about one half a tea-spoonful of each to a pint of tea. Should the disease increase so as to threaten suffocation, the tongue must be pressed down with the handle of a spoon, and the tumor opened with a lancet. All food and drinks of a stimulating nature must be avoided. Give warm diluent drinks. Nothing cold should be given.

Stroke of the Sun.

This is caused by long exposure to the sun's rays, and exhibits the same symptoms as apoplexy, and must be treated as such, particularly by bleeding, bathing the head with Sulphuric Ether, (No. 21,) and applying cloths wet with cold vinegar and water.

Bleeding from the Nose.

Bleeding at the nose is in general attended with but very little danger. It is often a relief to the headache, and the fulness of the blood vessels of the brain. Where the bleeding is moderate, and does not often occur, no remedies are required.

Bleeding at the nose is generally preceded with something of a feverish state. There will be a dizziness or swimming of the head, a flushed countenance, and a sense of tightness across the bridge of the nose, headache, and a rushing of blood to the head. Where the bleeding becomes periodical and profuse, it produces an habitual paleness of the skin, weakness of the system, and a disposition to dropsy. In such cases, immediate means should be used to check and cure the disease. In slight cases it is only necessary to apply cold water, or to snuff up a little alum water or the fine powder of alum. A plug of dry lint will sometimes stop it, where cold water and alum fail. In addition to alum, the White Vitriol, (No. 52,) and Sugar of Lead, (No. 51,) are very effectual when dissolved in water and snuffed up the nostrils. A dose of Epsom Salts, (No. 3,) or Seidlitz mixture should

be taken. In aggravated cases, a light vegetable diet should be adopted; all violent exercise and all stimulating food and drink studiously avoided; and febrifuge medicines used. In cases of debility, the Muriated Tincture of Iron, (No. 31,) should be given to strengthen the system, and to repair the lost tone of the digestive organs.

Bleeding from the Stomach, or Vomiting of Blood.

SYMPTOMS. — It commences with pain and distress in the pit of the stomach, sickness, restlessness, and weakness. There is a sense of extreme fulness of the stomach, and a dying sickishness, which are somewhat relieved by vomiting, but returns again every hour or two. The patient is pale and restless; often wringing and twisting the hands, and throwing about the feet. There is almost a constant nausea and retching.

After throwing up more or less of blood, sometimes quite clear, and at others mixed with the ordinary contents of the stomach, there will be a short respite, but the spasms and vomiting soon return and continue until the strength is apparently exhausted, when the spasms remit and the vomiting abates again. These appearances, unless checked by proper remedies, will often continue for several days and nights. But they are always more alarming than dangerous. Death will sometimes ensue from vomiting of blood, though not often.

TREATMENT. — If the force of the pulse is more than natural, and the distress considerable, blood may be taken from the arm, and some cooling purge be given, other-

wise, astringent medicines should be tried, such as from ten to fifteen drops of the Muriated Tincture of Iron, (No. 31,) or twenty-five drops of Elixir Vitriol, (No. 15,) in a wineglass of water every hour until the bleeding ceases. If there are severe spasmodic pains, and the vomiting of blood frequent, the remedy which will be found the most effectual is a tea-spoonful of Laudanum, (No. 16,) and a tea-spoonful of Ether, (No. 21,) mixed together and swallowed in a little water. Should this not allay the vomiting of blood and the spasms, it may be repeated at the end of one hour, and should the second dose not succeed, it may be repeated the third time, at the end of three hours more. The diet should be nothing more than barley water, gruel, or toast water. Those who are subject to this affection should be exceedingly cautious of wet feet, and every species of intemperance. A flannel waistcoat should be worn next the skin.

Bleeding from the Lungs.

Spitting of blood is one of the most alarming incidents to which we are liable. It very often occurs without any warning, and proceeds from no assignable cause.

SYMPTOMS. — A slight tickling in the throat, a little cough, probably produced by the blood let loose in the air-cells of the lungs, and a slightly saltish taste in the mouth. In some cases there will be feverishness, headache, quick pulse, alternate sensations of heat and cold, a sensible tightness in the chest, wakefulness, and a degree of restlessness, flushings of the neck and face, and thirst. Sometimes the blood will be spit up in small

quantities, and at other times in large mouthfuls. It is of a light red color, and usually frothy. The blood which comes from the stomach is always of a dark color, and comes up by *vomiting*. The blood which comes from the lungs is always of a light red color, and comes up by *coughing*. It will be observed, therefore, that the coughing of blood, and the vomiting of blood, are two very different disorders, both as respects the organs from which the blood proceeds, and the degree of danger to which the patient is exposed. When the blood comes up into the mouth by vomiting, but very little or no danger is to be apprehended; but when it comes up by coughing, the case is much more serious and doubtful. Blood is sometimes discharged from the mouth, back part of the nose, and the throat, and is liable to be confounded with raising it from the lungs. When it comes from the mouth merely, there is no coughing or vomiting, and when it comes from the upper part of the throat, and back part of the nose, it is brought out by mere hawking, and if the throat is examined, blood may be seen issuing from the capillary vessels.

TREATMENT. — In the act of spitting blood, the patient should be placed in an easy chair, or on a bed, with the head and shoulders raised. He should be directed not to speak loud, or to use exertion of any kind. He should be allowed free air, and only a light covering. Give a tea-spoonful of common salt in a cup of water, or ten grains of Alum, (No. 56,) with fifteen drops of Elixir Vitriol, (No. 15,) in a wineglass of water, every hour. A blister should be applied to the chest, and a dose of Salts, (No. 3,) or Seidlitz powder, be administered every

day. The greatest benefit may be expected from quietude of body and mind, using cold drinks, avoiding all stimulants, and a long persistence in a vegetable diet. Five or ten grains of Ipecac, (No. 42,) every half hour, or hour, will often check a profuse bleeding from the lungs.

Neuralgia.

This disease is a painful affection of the nerves in different parts of the system. It sometimes attacks the face, the foot, the leg, the breast, or the spine; and probably every other part to which nerves are distributed may be subject to it. In the face, it is called *tic douloureux*, and is the most distressing disease to which the human frame is subject; the pain darts from the corner of the mouth to the eye; indeed, the whole side of the face is affected. The pain always follows the course of particular nerves. Generally there is no swelling nor inflammation. It proceeds from debility of the whole nervous system.

TREATMENT. — The affected part may be bathed frequently with Ether, (No. 21,) Laudanum, (No. 16,) or camphor liniment, made by dissolving half an ounce of camphor in two ounces of olive oil. The internal remedies that have proved most successful, are two tea-spoonfuls of the precipitated carbonate of iron, three times a day. One grain of sulphate of morphia, and three grains of white sugar, rubbed well together, and divided into three powders; one powder to be taken three times a day. A Quinine Powder, (No. 41,) given three or four times a day, has sometimes proved beneficial.

Hæmaturia, or Voiding Blood by Urine.

This is commonly a symptomatic complaint, arising from some external injury by blows, falls, or bruises, by some violent exertion, as lifting a heavy weight, jumping, or hard riding. It more frequently arises from a small stone, lodged either in the kidney, or in the duct for conveying the urine from thence to the bladder, which by its irregularity or size, wounds the surface of the part in which it is lodged, or through which it has passed. If the blood proceeds immediately from the bladder, it is generally accompanied by a sense of heat and pain at the lower part of the bowels; when it proceeds from the kidney or from the passage to the bladder, it is attended by acute, excruciating pain in the small of the back, great difficulty in making water, sometimes great sickness and vomiting. This complaint is always attended with some danger, particularly if purulent matter is discharged at the same time.

TREATMENT. — There is usually great distress and pain in passing the water, which is soonest relieved by taking from forty to sixty drops of Laudanum, (No. 16.) After the violence of the pain has been relieved by the laudanum, a warm bath should be taken, or cloths wet with warm water or new rum, should be applied to the lower part of the bowels. The uva ursi is an excellent remedy in this complaint. A tea should be made of it, by steeping one ounce in a pint of boiling water, let it stand half an hour, then strain, and give a wine-glassful every two hours. Warm flax seed tea should be given for drink,

and an injection of epsom salts, dissolved in warm water, immediately administered. Eight grains of Nitre, (No. 50,) or a tea-spoonful of Spirits Nitre, (No. 19,) may be given every two hours. The muriated tincture of iron, given in the dose of fifteen or twenty drops three times a day, in flax seed tea.

Gravel.

SYMPTOMS. — There is usually a frequent and almost irresistible desire of voiding the urine, pain in the loins, numbness of the thighs, nausea, and vomiting, and not unfrequently a slight suppression of urine. The symptoms often resemble those of inflammation of the kidneys, but the deposition of reddish brown sand in the urine on becoming cold, will demonstrate the difference.

TREATMENT. — During a fit of the gravel, if there be much pain and difficulty in passing the water, give the patient a full dose of Laudanum, (No. 16,) from thirty drops to a tea-spoonful, according as the symptoms are more or less violent, then put him into a warm bath; let him drink freely of flax seed tea, and give a tea-spoonful of Spirits Nitre, (No. 19,) every hour, in a little water. A tea-spoonful of Cream of Tartar, (No. 2,) mixed in a tumblerful of uva ursi tea, and drank every hour, relaxes the kidneys, and causes a great flow of urine. The bowels should be opened by a dose of Castor Oil, (No. 33,) Salts, (No. 3,) or Magnesia, (No. 46.) Half a tea-spoonful of Bi-carbonate Soda, (No. 8,) taken three times a day in a glass of water, is a good remedy in the gravel complaint. It is of great importance to attend strictly to

the diet in this disease. If the appetite is good, and there is but little fever, the aliment should consist of milk, custards, and broths made of veal, beef, or mutton. But if there is any considerable degree of fever, the diet should be strictly vegetable, bread, rice, &c.

Dysury, or Difficulty in Passing Urine.

SYMPTOMS. — A frequent desire to make water, attended with a smarting pain, heat and difficulty in voiding it; sometimes a total suppression. It is occasioned by inflammation, gravel, Spanish flies taken internally, or applied externally, in a blister. It arises, however, in some cases from a paralysis of the bladder, especially in old people, and from the pressure of tumors, and of the womb in pregnancy.

TREATMENT. — If it arises from the use in any way of Spanish flies, copious draughts of flax seed tea, or barley water, will remove it. In all urgent cases, the surest and quickest means of relief, is to draw off the water by means of the catheter. When there is much pain, heat, and soreness in the parts, give a clyster of flax seed tea, or thin starch, with a tea-spoonful of Laudanum, (No. 16.) Put the patient into a warm bath, give thirty or forty drops of Laudanum, (No. 16,) or a Dover's Powder, (No. 40,) every hour, until the pain is relieved. The uva ursi tea should be drank every half hour. To reëstablish the flow of urine, six or eight grains of Sal Nitre, (No. 50,) or a tea-spoonful of Spirits of Nitre, (No. 19,) may be taken every two or three hours. The bowels should be freely opened with Castor Oil, (No. 33,) or Epsom Salts, (No. 3.)

FEMALE DISEASES.

Midwifery.

As cases of childbirth sometimes occur on board of vessels where no professional aid can be obtained, it seems necessary in a work of this kind, to impart such information as will enable a person of good understanding to manage an ordinary case of labor, without the aid of a physician. There is not more than one case in a thousand, that requires any other aid than nature is capable of accomplishing; indeed the untimely interference of art often causes the most incalculable mischief and injury. Dr. McNair says, there is not, according to his experience, and the reports of the most eminent surgeons, more than one case in three thousand that requires the least assistance. Labor generally comes on at the end of nine months after conception. When the patient is supposed to be in labor, it is necessary to ascertain whether the pains are true or false. If she complains of flying, or unsettled pains, occurring mostly towards evening, or during the night, and being slight or irregular, it may be taken for granted that they are spurious or false. If these symptoms prove troublesome, an attempt ought to be made to relieve them, as they only harass and weaken the patient; the best plan is to give from twenty-five to thirty drops

of Laudanum, (No. 16,) and repeat it every three or four hours if necessary. No danger need be apprehended from giving an anodyne, for if the labor be actually beginning, it will often have a happy effect in regulating the pains, and facilitating the labor; on the other hand, if the pains are false, it will save the strength of the patient, as they sometimes occur several days, or even weeks before labor. True pains may be known by the pain being more concentrated in the lower part of the belly, through the loins and hips. When the pains come on at regular intervals, gradually increase in severity, are attended with a bearing down sensation, or looseness of the bowels, frequent inclination to make water, with a discharge of slimy matter tinged with blood, known by the name of "shows," it may be presumed that true labor has begun. The dress of the patient in labor, should be light and simple, her linen may be tucked up so far that there will be no necessity of a removal after delivery. When the patient is no longer able to remain up, she may lie down, with her head and shoulders raised in any position which is most desirable; lying upon the back, is a natural and comfortable position, but lying upon the left side is generally preferred by physicians. A bed of straw, or what is preferable to all others, a hair mattress, is decidedly more comfortable and healthful than a feather bed. A dressed skin, or oil cloth, may be placed on that part of the mattress on which the body of the patient is to rest. A coarse blanket folded within a sheet, should be laid immediately beneath her, to absorb the moisture, which must be removed after delivery.

A sheet should be pinned round the patient's waist, to

prevent the linen and bed as much as possible from being soiled. Every thing being adjusted, very little more will be necessary but to wait patiently the efforts and operations of nature. When the pains become very severe, quickly succeeding each other, the person who officiates may sit by the side of the bed, and use every effort to quiet the fears, and support and comfort the patient. After the pains have continued for some time, the waters break and come away. During the pains, some one of her friends may take hold of her hands, or a sheet may be twisted and tied to the bed post, on which she may be allowed to pull. The person in attendance may assist the patient by pressure of the parts with the palm of the left hand, when they begin to be distended by the head of the child. This pressure should be continued until after the head is born. When the head is delivered, all that is necessary to do is to support it, and wait for the pains to expel the child. As soon as the child is born, if the cord, or navel string, is twisted around the neck, remove it immediately. If it should not cry or breathe freely, it should be chafed on the stomach, with a flannel cloth, a little cold water, vinegar, or spirits be sprinkled upon it, and occasionally a sudden gust of air blown upon it by the mouth or a fan. These means, if the child be alive, will generally revive it, and the breathing will be established; but should it remain apparently lifeless for some minutes, it ought to be placed in a warm bath and rubbed, and the lungs be inflated by putting a quill, or a pipe stem into the nostril, and then closing the nose and mouth, so as to prevent the escape of the air through them, and blowing gently until the lungs are filled. The

mouth and nose should now be unclosed, and the air forced out by gentle pressure upon the chest and abdomen. This process may be repeated several times, and the motion of breathing imitated, by the pressure of the hand upon the abdomen, giving it a rising and falling motion. By these means, children that are apparently lifeless will sometimes be resuscitated. Too much haste in tying the navel string should be avoided. The child should have time to establish fairly the new mode of life, before that by which it previously existed is cut off. When the action of the lungs is well established by the child's crying, a firm strong string, about as large as a knitting needle, may be passed round the cord or navel string, about an inch from the body, and tied as tight as it can be drawn, and another must be tied at a little distance from it above, and separated between them, with a pair of scissors. The patient must now be covered and directed to lay quiet.

The child being taken away, the next thing to be attended to is the afterbirth. Generally after about twenty or thirty minutes, a pain is felt, which may be sufficient to expel it; if it should not, and there is no pain, gentle manual attempts may be made to remove it. The cord may be taken hold of by the left hand, the two first fingers of the right hand may be carefully introduced into the vagina, and the anterior or fore part of the afterbirth held in this situation for some minutes, in order to excite a contraction of the womb. The patient may now be directed to hold her breath and press down, which forces it forward; and at the same time a gentle exertion may be made upon the cord with the left hand, while the same

is made upon the afterbirth with the right; this will almost invariably extract it in a few minutes. If from any cause it should not, no farther attempts must be made for the present, but left for a few hours, when, if the natural contractions of the womb do not remove it, it must be done in the manner recommended, only that a little more force may be used. Great care, however, is necessary in these cases, not to pull so hard as to break or separate the cord from the placenta or afterbirth, nor to bring down the womb, the latter of which accident would be fatal, and the former, to say the least of it, very troublesome. After the labor has been thus completed, if the patient is not too weak, she may be raised up and seated upon the side of the bed, while all the wet clothing is removed, and the blood, etc., that remains on her person is washed off with a little warm spirits. After these precautions have been observed, and the bed properly prepared, she may be laid down, and a diaper laid to the parts, to absorb the discharges. A suitable bandage should also be placed around the abdomen or belly, and made moderately tight, but not so as to render her uncomfortable.

AFTER-PAINS. — Soon after delivery these usually come on, and with some females prove remarkably severe. The quicker the labor has been, the slighter will they prove in general. Women with their first child, are seldom much troubled with after-pains. When they prove so troublesome as to deprive the patient of her rest, she may take thirty or forty drops of Laudanum, (No. 16.) During the first two or three days after delivery, the patient should be kept perfectly quiet, should see but little

company, and be restricted to a plain, unstimulating diet. The most appropriate articles are gruel, rice, soda cakes, dry toast, and weak tea. A dose of castor oil should be given on the third day.

The management of a new-born infant is a matter of considerable importance, especially on board of ship, where women, usually employed on these occasions, are not present; therefore a few observations upon this subject may not be inappropriate in this place. As soon as the child is removed from the mother it should be wrapped in a warm, dry flannel, or other soft cloth, as it cannot be otherwise than very sensitive to the cold, and liable to take cold. Great pains should be taken that it be washed clean, especially about the eyes, under the arms, and in the groins; and if it be thickly covered with the white unctuous matter, which is often very difficult to remove, it will be necessary to rub it thoroughly with lard or sweet oil, before the washing is commenced. The soap used should be mild, and the water soft and moderately warm. The child should be as little exposed to the air, after being washed, before it is wiped dry and covered, as possible, particularly in cold weather. In dressing the navel, the object is to prevent the portion which is to come off, and the acrid matter which is generated in the process of sloughing, from coming in contact with the skin of the belly, and thereby excoriating it. This may be accomplished by drawing the navel-string through a hole of suitable size, made in a piece of folded linen, or cotton cloth, and wrapping it up with another small piece of the same. The navel-string should be drawn entirely through, so that the folded linen will come

in close contact with the body of the child. It should be laid upward, and a moderately tight band put around in such a manner that it will not slip or draw upon the navel.

The only food or drink that is necessary, before the milk comes, is a little molasses, or sugar and warm water. If the bowels are not sufficiently free, a small tea spoonful of castor oil is the best medicine to move them. If the child be griped, or in pain, a little catnip or anise seed tea may be given. It often happens that the child does not pass any water for several days. A little flax seed or pumpkin seed tea may be administered, and a thin bag of fine salt applied to the lower part of the bowels, with some advantage. After the milk has come, ordinarily, nothing else will be required; and the less the child has, either in the way of food, drink, or medicine, except what nature has provided for it, the more likely it will be to thrive, and escape disease. The child should be put to the breast as soon as dressed and the mother is made comfortable.

Abortion or Miscarriage.

Miscarriages or abortions, which we use as synonymous terms, are in general owing either to accident, or to some weakness or defect of the constitution. A fall, a blow, overstraining, or exertion in some way or other, are the most usual causes of miscarriage in women of sound constitutions. Tight lacing may also be added to the list of incidental causes. Miscarriages are sometimes produced by violent bursts of passion, the sight of hideous and

disagreeable objects, or by the smell and taste of certain nauseous drugs and poisons. And when once a disposition to miscarriage has commenced, it often continues and increases for years, inasmuch as some women will go on miscarrying for six or seven, or even a dozen times in succession.

TREATMENT. — The patient should be placed in bed, and rest and quietness strictly enforced. If the pulse is full and the patient robust, bleeding from the arm will be advisable, to be succeeded by any opiate, and for this purpose, one Opium Pill, (No. 37.) which contains one grain of opium, or forty drops of Laudanum, (No. 16,) or one Dover's Powder of ten grains, (No. 40,) may be used, and repeated in three or four hours, if the symptoms continue. Where the flow of blood is profuse, vinegar and water should be applied to the body below the abdomen, by means of linen or cotton cloths, and a piece of soft sponge or linen cloth, dipped in a solution of Alum, (No. 56,) about a tea-spoonful to a pint of water, should be pressed into the vagina. All drinks should be taken cold.

Suppression of the Menses.

The cause of this complaint generally is from weakness, colds, depression of spirits, and the want of active exercise. The patient should use sufficient exercise in the open air, to promote a gentle perspiration, at least twice a day, using care not to check the perspiration by taking cold.

TREATMENT. — Let the patient sit over a vessel of

steaming water until a perspiration is produced. Powdered savin leaves, in doses of twenty grains, or made into a tea and drank in a sufficient quantity to raise a perspiration, for several days, will in a majority of cases, effect the menstrual effusion. Red centuary and tansy are valuable articles in this complaint, made into a tea and drank freely. The above mentioned herbs for a tea, are prepared by adding to one ounce of the herb a pint of boiling water, and steeped about half an hour; do not boil them.

Bleeding from the Womb.

Some of the causes producing this affection, are childbirth, miscarriages, accidents, and diseases incident to pregnancy.

SYMPTOMS. — An immoderate flow of the menses is often preceded by headache, giddiness, shortness of breath, and is afterwards attended with pains in the back and loins, thirst, and a frequent, strong, hard pulse. If the disease has induced much debility and severe attacks, it is not uncommon for the feet to be affected with dropsical swellings, particularly towards evening.

TREATMENT. — The patient should be kept quiet, in a horizontal position, on a cool, hard bed, or a mattress. The clothes should be light and loose. The drinks cool, and acidulated with elixir vitriol, cream of tartar, or tamarinds. Alum whey used freely, will prove very beneficial, and cloths wet with vinegar, spirits, and cold water, should be applied to the abdomen and over the vagina, and renewed as often as they grow warm. The diet

should be of the lightest kind. Should the discharge continue to increase, take Sugar of Lead, (No. 51,) twelve grains, and two grains of powdered opium, mix well together, and divide into four powders, of which one may be given every hour, or half hour, (if the flooding be excessive,) until the discharge ceases : to be followed by a dose of castor oil. The following solution is often given with advantage : blue vitriol, six grains ; laudanum and elixir vitriol, of each two drachms ; water, an ounce and a half ; mix. Dose, from thirty to forty drops, or what the stomach will bear without producing sickness, three times a day, in a little water.

Fluor Albus, or Whites.

The symptoms of this complaint are so well known to females, that it is not requisite to give a particular description of it. It never lasts long, however, without producing a great degree of weakness, and a disordered state of the nervous and digestive systems.

TREATMENT. — If the stomach is in a disordered state, an emetic of Ipecac (No. 42,) may be given, but in general it will be sufficient to commence with a moderate purgative, as two or three of the Pills, (No. 34,) after which, twenty drops of the Muriated Tincture of Iron, (No. 31,) three times a day, in a little water. Five grains of iodide of potassium, taken in a little water, three times a day, and gradually increased to ten or twelve grains, has proved, in a great number of cases, to be a most effectual remedy. The diet should be nutritious. Regular hours of sleep should be observed, and as much

exercise taken as will refresh the system, without exhausting the strength. At the same time local remedies should be used; a strong infusion of nut galls, or white oak bark, should be injected up the vagina, or a wash, made of one drachm of sugar of lead, and one drachm of white vitriol, mixed and dissolved in a pint of water; let it stand and settle, then pour off the clear solution; either of these injections should be used three or four times a day. The bowels should be kept regular, by an occasional dose of Pills, (No. 34,) or Castor Oil, (No. 33.)

Prolapsus Uteri, or Falling of the Womb.

This disease happens to females of all ages, but much more frequently to those who have borne children. It is always a troublesome, painful, teasing disorder, and though it does not often destroy life, it makes it very miserable. It is generally the consequence of frequent miscarriages, profuse hemorrhages, difficult labors, and too early and violent exertions after delivery. In unmarried females it is occasioned by jumping, dancing, and too great exertions of the strength. It is sometimes produced by general weakness of the system, brought on by other diseases.

TREATMENT. — The first thing to be done is to replace the womb in its natural situation; this may be effected by a recumbent position and pushing the organ back as far as it will go. It must afterwards be maintained in its place by means of a supporter, the best kind of which will be found to be a piece of fine velvet sponge, of a

suitable size and shape; this may be worn during the day, and removed at night. To strengthen the ligaments of the womb, and restore the tone of the relaxed muscles, injections should be employed three or four times a day, for some weeks; for this purpose make a strong infusion of raspberry leaves, to which a small portion of brandy may be added, or a decoction of white oak bark; or an injection may be made by dissolving one drachm of White Vitrol, (No. 52,) or one drachm of Sugar of Lead, (No. 51,) in a pint of pure water. At the same time, the patient should take internally, fifteen or twenty drops of the muriated tincture of iron, three times a day, or half a wine-glassful of the myrrh mixture. Cold bathing will be found very beneficial.

DISEASES OF CHILDREN.

Retention of the Meconium.

This is a dark colored viscid matter, found in the bowels of all infants at the time of birth. Most generally the first milk of the mother will be sufficient to remove it. If it should not, a small tea-spoonful of Castor Oil, (No. 33,) may be given, and repeated in a day or two, if necessary. Should the child be griped, or in pain, a little catnip or anise seed tea may be given. It often happens that the child does not pass any water for several days; but this is not a matter of much importance, as the secretion of the kidneys does not always commence immediately. A little flax seed or pumpkin seed tea may be given, and a thin bag of fine salt applied to the lower part of the bowels, with some advantage.

Thrush, or Infant's Sore Mouth.

This affection is peculiar to early infancy. It appears first on the lips and corners of the mouth, in small white specks. Sometimes they become very numerous, and spread so as to cover the whole surface of the mouth with a whitish crust, extending to the throat, stomach and bowels. Previous to the appearance of the eruption,

the stomach and bowels are more or less deranged, and the child is commonly very drowsy.

TREATMENT. — Should the bowels be costive, or the discharges green, small doses of Calcined Magnesia, (No. 46,) or Rhubarb, (No. 45,) with a grain or two of Bi Carb. Soda, (No. 8,) should be given every day or two, until the bowels are corrected. As a local application, equal parts of finely powdered borax and white sugar is probably the best that can be used. It may be dissolved in an infusion of red raspberry or rose leaves, or a weak decoction of marsh rosemary, and applied by means of a small soft swab.

Convulsions, or Fits.

After loosening the child's clothes, cold water should be dashed upon its face, stomach, and bowels, and continued for some minutes. If this does not revive it, and it is unable to swallow, an injection of salt and water should be administered. If this does not make any impression on the fit, the child should be immersed in a warm bath, and afterwards rubbed with the spirits of camphor. Cloths wet with hot water or spirits, should be constantly applied to the stomach, and mustard poultices to the feet. As soon as the child can swallow, an emetic of Ipecac, (No. 42,) should be given; ten grains may be mixed in two table-spoonfuls of warm water, and a tea-spoonful given every ten minutes until it vomits freely, and this should be followed by a dose of castor oil, or magnesia. If the fits are caused by teething, they must be treated as directed under that head. If the above

means fail, five drops of Laudanum, (No. 16,) and ten of Ether, (No. 21,) may be given to a child one year old, and less or more according to the age. Not more than one drop of laudanum should be given to a child under a month old.

Difficult Teething.

SYMPTOMS. — Soreness and swelling of the gums, fretfulness, drivelling, sleep interrupted and imperfect, and there is more or less disorder of the stomach and bowels. Most children are loose, although some will be costive. There is frequent vomiting, a heat of the bowels, of the soles of the feet, and of the palms of the hands, followed very soon by a convulsion fit. Eruptions also appear about the head and face.

TREATMENT. — In severe cases, the gums should be lanced down to the teeth, and the child put into a warm bath. If there is much griping of the bowels, peppermint or spearmint tea should be given frequently, to produce a moisture upon the skin. It is not advisable to stop the diarrhœa when it exists, unless it should be very severe; in which case the best remedy is a dose of Castor Oil, (No. 33,) with two or three drops of Laudanum, (No. 16,) every day, or thirty or forty drops of Paragoric, (No. 15,) in place of the Laudanum. When there is sourness of the stomach, or of the discharges from the bowels, a tea-spoonful of Calcined Magnesia, (No. 46,) may be used instead of the Castor Oil. Costiveness should be carefully guarded against. Convulsions may often be prevented by proper attention: when

the bowels are full, hard, and hot, no time should be lost in procuring a free evacuation, either by a full dose of Castor Oil, (No. 33,) or by an injection. Cutaneous eruptions should not be healed until the teeth are all cut through.

Vomiting.

Is a common occurrence with children, and arises mostly from an overloaded stomach, which is relieved by that process. It seldom requires any treatment. A mustard plaster may be applied to the stomach, and spear-mint tea given every now and then, if the vomitings are very frequent. If costive, the bowels may be moved by injections of salt and water. If attended by diarrhœa, and is incessant, it becomes cholera infantum, and must be treated as directed for that disease.

Worms.

The symptoms of worms are very obscure. In children troubled with worms, the appetite is changeable, but most commonly voracious. The belly is hard and swelled, and the bowels are costive. There is more or less heat and dryness of the skin. They are apt to start in their sleep, and wake with pain in the bowels. The countenance is pale, and the eyes sunken, and sometimes purple underneath. The flesh becomes wasted, and they are liable to convulsions. There is a frequent rubbing and picking of the nose, grinding of the teeth, foulness of the breath, and sickness of the stomach. There is always a great irritation of the stomach.

TREATMENT. — The best remedy for the long round worms, which are the most common in children, is three grains of Calomel, (No. 43,) and five of Rhubarb, (No. 45,) mixed in molasses, and given at bed time, followed in the morning with a dose of senna tea. This is a suitable dose for a child from one to four years of age. It should be repeated within two or three days. Half an ounce each of pink root and senna, one ounce of manna, and two drachms of caraway or coriander seeds, steeped in a pint of boiling water for one hour and strained, is an excellent remedy; a wine-glassful may be given to a child from two to four years old, three or four times a day. Injections often prove very efficacious. Half an ounce of wormwood steeped in three quarters of a pint of boiling water for half an hour, and strained, may be administered in quantities of half a pint. One drachm of aloes, dissolved in half a pint of milk or water, and repeated several times, is a good remedy for the small pin worms, which have their location in the rectum, or lower part of the bowels.

Diarrhœa.

This disease is most frequently caused in children by the use of improper food, or it may arise from living in warm, damp rooms, and exposure to cold and moisture.

TREATMENT. — In the early stage of the disease, if it is caused by improper food, it will be advisable to give a gentle emetic of Ipecac, (No. 42,) and after it has operated, a dose of rhubarb and magnesia. Should this treatment not have the desired effect, a tea-spoonful of

the following mixture may be given every four or six hours. Take of chalk mixture two ounces, Laudanum, (No. 16,) eight drops. This is for a child a year or two old. If the stools are white and slimy, two of the Pills, (No. 36,) may be mixed with the chalk mixture and laudanum. If there should be sickness at the stomach, or vomiting, give the child strong spearmint tea sweetened, apply a mustard plaster to the stomach, and give an injection of salt and water. The diet should be mild and light, such as arrow root, barley water, rice, flour porridge, &c. If attended with fever, the following mixture will prove a great benefit: From half a drachm to a drachm of the citrate of potassa, dissolved in a gill of water, and one tea-spoonful given every three hours. For children under one year of age, half a drachm; above that age, one drachm of the citrate of potassa to a gill of water.

Cholera Infantum.

This disease is most prevalent in the months of July, August, and September. It is characterized by severe vomiting and purging. It is commonly of very short duration, terminating either in health or dissolution in a few days, and often in a few hours. An accumulation of heat about the stomach and bowels, and in the hands and feet, is the most common forerunner of the disease. This is soon succeeded by vomiting or purging, or both together, pain in the pit of the stomach, griping of the bowels, shortness of breathing, a sudden loss of heat, great prostration of strength, a quick, small, feeble pulse, thirst, followed by a cold perspiration. In fatal

cases, the natural heat never returns, but the patient becomes weaker and colder, by every discharge, until dissolution takes place. The constant retching, and the deep pain at the pit of the stomach, are the most remarkable symptoms, and require our principal attention.

TREATMENT. — As this is a dangerous disease, it requires prompt and active measures. At the very onset of the disease an emetic of Ipecac, (No. 42,) will be of essential service. Strong spearmint tea should be given, and a mustard plaster applied to the pit of the stomach. When the vomiting and purging is severe, a dose of laudanum should be given immediately. The dose for a child one month old, should be one drop; for a child three months old, two drops; for one six months old, four drops; for one a year old, five drops; and for one two or three years old, from eight to ten drops. It may be repeated every two hours, until the stomach and bowels are quieted. Should the stomach refuse it, double the quantity of laudanum may be given each time, by way of injection, in about a table-spoonful of thin starch, or flax seed tea. If there is great coldness, and loss of strength, small quantities of wine or brandy should be given to restore the strength. Flannels rung out in hot water, laid on as hot as can be borne, and frequently repeated, often prove beneficial. As soon as the stomach and bowels are quieted, a dose of calcined magnesia should be given, or calomel, which is more likely to stay on the stomach. The dose of calomel for children between one month and three years old, is from half a grain to five grains.

Croup.

This disease is dangerous from the suddenness of the attack, and the quickness of its progress, and requires prompt and decided measures to prevent suffocation. It generally comes on quite suddenly, attended by a laborious inspiration, sounding as through a brazen tube, and a harsh dry cough.

TREATMENT. — On the first appearance of croup give a tea-spoonful of the following mixture, every ten minutes, until full vomiting is produced. Take of wine of antimony and wine of ipecac, of each half an ounce, mix. After it has thoroughly operated, put the child into a warm bath for ten minutes, and apply four or six leeches to the throat; if these cannot be obtained, apply a blister to the neck. If the alarming symptoms are not checked in twelve hours, repeat the warm bath, and give a grain or two of Calomel, (No. 43,) every two hours. Powdered alum has been recommended by some physicians as the best emetic for children in the croup, a tea-spoonful mixed in honey or molasses, to be given every ten minutes until it pukes thoroughly. But this disease, in general runs its course with such rapidity, that no time should be lost in procuring the aid of a physician, if one can be obtained.

Burns and Scalds.

In slight cases, the application of cold water, scraped potatoes, or a cold poultice made of sugar of lead water, will be all that is necessary. A piece of lint or cotton

saturated with a liniment made of equal parts of sweet oil and lime water, is a good application. Let the surface of the blister remain until it leaves the wound of its own accord. The pain may be relieved by giving fifteen or twenty drops of Laudanum, (No. 16,) every three or four hours, and the strength supported by wine or brandy. Where the burns are deep, it will be necessary to apply a poultice, which may be repeated until the dead matter is removed. It should then be treated as a common sore.

Chilblains.

Chilblains are painful inflammatory swellings of a purple or leaden color, to which the fingers, toes, heels, and other extreme parts of the body are liable, attended with an intolerable degree of itching.

TREATMENT. — In common cases, as soon as any part becomes affected, rub it with Spirits of Camphor, (No. 25,) or Spirits of Hartshorn, (No. 26,) or Soap Liniment, (No. 23.) When the swellings break, or ulcerate, they should be poulticed, and afterwards dressed with Basilicon, (No. 11,) or Turner's Cerate, (No. 9.)

REMARKS ON SURGERY.

NOTE. — Additional observations and suggestions on operative surgery, illustrated with wood-cuts, will be found in the Appendix. They are the result of much practical experience, and should be carefully read before undertaking any surgical operation.

INFLAMMATION is characterized by heat, redness, swelling, pain, and tension. It is caused by cold, wounds, or irritation.

SYMPTOMS. — Redness, swelling, pain, heat, shooting and throbbing; the skin dry and hot; fever; tongue coated, and the secretions diminished. It terminates with or without suppuration, adhesion, and rarely by mortification.

TREATMENT. — Where there is local inflammation, apply a decoction of bitter herbs. Poultices may also be applied to the inflamed part; that made of ground slippery elm is the best. The flax seed meal forms a very good poultice in many cases. For white swelling, felons, and inflammation of the breast, slippery elm poultice, made with ley, is the best. In inflammation attending carbuncle, equal parts of slippery elm and flax seed, is preferable to any other. Poultices may be applied warm or cold; the best criterion however, is the feeling and comfort of the patient. Poultices should be renewed every three or four hours, and never suffered to get dry and hard. The bowels should be kept open with Epsom Salts, (No. 3.) When there is great pain, anodynes may be given. Rest must be enforced, and a very light vegetable diet.

SUPPURATION. — When suppuration or matter has formed, which may be known by the softness and fluctuation of the parts, it may be necessary to open the abscess with a lancet, after which still apply the poultice as long as there is any inflammation, then dress with Basilicon, (No. 11,) or Turner's Cerate, (No. 9.)

Mortification.

SYMPTOMS. — If it proceeds from excessive inflammation, there will be acute and constant pain, great anxiety, often delirium, followed by a sudden cessation of all inflammatory symptoms. The part, before tense, now becomes flaccid, of a livid color, losing its heat and sensibility. Blisters are formed, under which appear brown spots. The parts soon become black, and acquire a fetid smell. If it terminates favorably, the mortified portion is completely surrounded by a white line, about which matter is formed. The dead part now loosens and sloughs out, leaving a suppurating ulcer. If, on the contrary, the termination be fatal, the mortification rapidly extends; great constitutional irritation arises; the pulse becomes small, quick, and irregular, there is a fixed flush on the countenance, with great anxiety and prostration of strength, and death soon closes the scene.

TREATMENT. — If it be connected with, or dependent on inflammation, means must be used to subdue that inflammation. If debility of the system has been a predisposing cause, it must be remedied by a more wholesome regimen, and the strength of the patient supported by wine, porter, bark, &c., and a nutritious diet. When

vesicles or blisters appear on the part, showing a disposition to gangrene, or when sloughing actually takes place, the following poultice will separate the living from the dead parts, and put a speedy check to it. Take yeast, a sufficient quantity, stir in powder of slippery elm enough to form a poultice, apply it warm, and renew it often. This will correct the feter of the parts, and assist the powers of nature to separate the mortified from the living flesh. In extensive mortifications of the limbs, amputation is recommended, but this operation should never be performed until a line of demarcation is formed, or a separation takes place between the dead and the living parts. It is a very doubtful case, however, that the knife will save the life of the patient. If a proper course of treatment will not cure, there will be such an ill conditioned state of the constitution, or in the ulcer or wound itself, that should amputation be performed, the stump will slough, or the patient will sink from irritation or the direct consequence of the operation. The mortified limb may be bathed three or four times a day in warm weak lye, one hour each time. The application of a lye poultice has proved a sovereign remedy in mortifications. After having been applied a short time, it has often separated and detached large portions of mortified flesh, and brought about a healthy action. A lye poultice may be made by mixing a sufficient quantity of slippery elm powder with warm lye water.

Amputation.

Fortunately it is not often necessary to perform this operation on board of ship, but should such cases occur, the following directions are to be observed. When a limb is badly crushed, or in compound fractures of the bones, amputation is in most cases necessary. But should mortification occur, it will be absolutely indispensable.

The patient being placed in a convenient and comfortable position, where there is a good light, put a handkerchief around the limb a short distance above the place where the incision is to be made; tie the ends of the handkerchief together, put a stick through and twist it around until no pulsation can be felt in the artery below it. An assistant, grasping the limb with both hands above where the incision is to be made, should draw up the skin and cellular substance as far as possible, and hold them in that situation, while the operator, standing on the outside of the limb, and passing the knife under and up on the inside, commences the incision at such a point as to be able, with a single circular stroke, to divide them down to the red flesh or muscles. The assistant should continue to draw the integuments upward, while the operator dissects them off from the muscles to such an extent as is necessary to have them completely cover the stump where the limb is severed. Before the assistant relaxes his hold upon the skin, the muscles should be divided close to the edge of it down to the bone, by one stroke of the knife, beginning, as before, on the upper and inner side of the limb.

The muscles are now to be separated from the bone, and drawn upwards, to a greater or less distance, according to the size of the limb, by means of a narrow strip of firm cloth, slit one half its length, called a retractor. The width of the retractor should be in proportion to the size of the limb, and being properly applied, it will also protect the flesh from being wounded in sawing the bone. The limb being properly supported by an assistant, the bone is divided by a few long, light, and steady strokes of the saw. The end of the bone should be smoothed if there be any roughness, the stump cleansed with warm water, and the arteries secured with small, strong ligatures, one end of which should be left long to hang out of the wound when dressed. The handkerchief should now be loosened, and if any vessels bleed, they must be tied, and if necessary it must be tightened again, to prevent an unnecessary loss of blood. Being assured there is no further danger of bleeding, the flesh and skin are to be brought accurately together over the bone, and retained by strips of adhesive plaster from half an inch to an inch in width, according to the size of the limb. A compress of lint and folded linen are to be applied over the wound, and the dressing finished by the application of a cross bandage and roller. Except there should be secondary bleeding, the dressings will not require to be removed before the fourth or fifth day; after which, if there be much discharge of matter, they should be changed daily, until the ligatures come away, and the wound is healed.

In amputation of the fingers and toes, the bones of the hands and feet, the wrists and lower part of the legs,

where there is comparatively but little flesh and integument, great care and calculation are necessary, to preserve a suitable covering for the remaining portion of the bone. The usefulness of the stump is a consideration of the first importance, and the best that circumstances will permit should be done, to prevent it from appearing unsightly and disgusting. When the operation is performed on the arm, below the elbow, and below the knee, on the leg, where there are two bones, a narrow knife should be used, to pass through and divide the flesh between them. During the cure of the wound, after amputation, the patient should be kept perfectly quiet, and close attention be paid to the general health. The diet should be light and nutritious; inflammation and fever be guarded against by keeping the bowels free, and other means usually recommended for that purpose.

Bleeding.

Every man should know how to bleed. It is an operation so extremely easy in itself, and so important in its effects, that it should universally be understood. There is no mystery or difficulty in the matter; and any one who has command of his fingers and eyes, can acquire in five minutes that skill which may enable him to save the lives of many.

DIRECTIONS. — Tie a bandage around the arm, at least two inches above the elbow joint, and then feel for the pulse at the wrist. If the pulse is stopped, the bandage is too tight and should be loosened. Select the most prominent vein, and feel with the tip of your finger, if

an artery lies near it. If you feel one, pulsating so close to the vein that you are fearful of wounding it, choose another. Now take the lancet between your thumb and fore finger, and make a slanting incision, from which the blood will flow freely. When the patient has bled enough, or becomes faint, untie the bandage, and bring the two edges of the wound together. Lay a piece of lint, or linen, over the cut, and bind it on with another bandage.

Directions for Passing Catheters.

The catheter may be introduced when the patient is standing, sitting, or lying down. The operator should hold the head of the penis between the thumb and fore-finger of the left hand. The penis is then to be drawn upward; the catheter being well oiled, is now to be introduced into the urinary passage directly downward, with the concavity towards the abdomen; slowly bringing the handle of the catheter forward and backward, till the instrument enters the bladder. The urine will follow the removal of the wire within the catheter. Great care should be taken to exercise no force, either in introducing or withdrawing the instrument.

The above directions are applicable for the introduction of bougies.

Concussion of the Brain

Is usually caused by a fall or blow. The symptoms are frequent vomiting, a cold sweat covers the face, the

pupil of the eye becomes contracted, the pulse grows feeble, and the countenance pale.

TREATMENT. — Cloths, dipped in cold vinegar and water, should be applied to the head, and a dose of Salts, (No. 3,) given, or an injection administered. Bathe the feet, and afterwards apply mustard plasters to them, and between the shoulders. The diet should be low, and the patient kept perfectly still and quiet. Avoid the use of stimulants, as it may produce inflammation of the brain and fever. Should this occur, treat the disease as for inflammation of the brain, as directed.

Compression of the Brain

Is generally caused by a compound fracture of the skull. The symptoms agree with those of apoplexy.

TREATMENT. — If there is one or more pieces of bone, with a suitable instrument raise them up; if any are loose, remove them; shave the hair off for some distance around the wound, and then proceed to dress it, in the same manner as an ordinary wound. Spirits and water may be applied to keep down the inflammation. The treatment in other respects the same as in concussion.

Frost Bites.

When a part of the body has been exposed to intense cold, it becomes bloodless, and without feeling. This injury often happens to the hands and feet of sailors from long continued exposure in winter. As soon as discovered, the frozen part should be rubbed with snow, or im-

mersed in cold sea water, until it recovers the natural warmth and sensibility. The application and friction must be continued till the desired effect be produced, when the water may be restored to a common temperature in the most gentle and gradual manner. External heat should on no account be applied to a frozen limb, as it will become gangrenous almost instantly. If mortification of the part ensues, apply poultices of powdered charcoal, mixed with bread, and dress with Simple Ointment, (No. 12.)

Wounds.

Wounds are divided into incised, lacerated and contused, punctured, gunshot, and poisonous wounds. Incised wounds are made with a sharp cutting instrument. All that is necessary to be done in simple cuts, is to draw the edges of the wound close together, and keep them in that situation by means of straps of adhesive plaster; over the straps should be placed a pledget of lint, and over the whole a bandage, moderately tight. If the wound, however, be of considerable extent, and bleed freely, the first thing to be done is to stop the bleeding. This can be effected, if the bleeding vessels are small, by making firm pressure with a sponge for some considerable time, or a pledget of lint, and a bandage may be applied. If an artery of any considerable size is injured, which may be known by the blood being of a bright scarlet color, and gushing out in a jet, with great force, compression must be made with a handkerchief, in the same manner as directed under the head of ampu-

tation, and the artery taken up and tied; then remove the handkerchief, and dress the wound with lint and bandage as before directed. The straps or dressings should on no account be disturbed before the fourth or fifth day, unless the parts should be in great pain or much swollen. If the incision takes place about the cheeks, or lips, or other parts where adhesive plaster cannot be applied, it will be necessary to put in two or more ligatures, according to the extent of the wound. Should the parts swell, a cooling lotion should be used, of a weak solution of sugar of lead.

Punctured Wounds

Are made by a sharp pointed instrument, as a dagger, bayonet, scissors, nail, &c. All punctured wounds and stabs, are in general much more dangerous than cuts, from their extending to a great depth, often injuring important parts and organs, and as they are particularly apt to be followed by inflammation, deep seated abscess, or locked jaw. Punctured wounds are not apt to heal but form deep seated ulcers. The orifice should be closed by strips of adhesive plaster, and gentle compression applied with a bandage along the course of the puncture. Rest is to be observed, and a low diet. When the pain is severe, an Opium Pill, (No. 37,) may be given, and warm fomentations and poultices may be applied. Sometimes under this treatment the wound unites by the first intention, but more frequently, in cases of deep stabs, the pain is intolerable, and the inflammation runs so high that there is little hope of avoiding suppuration. In this

condition poultices are the best applications and must be frequently renewed.

When matter is formed, the treatment must be the same as for suppuration.

Lacerated and Contused Wounds.

These are made by a rough instrument, as a saw or stone, &c. Where the fibres have been torn asunder they are productive of worse consequences than incised wounds; they are scarcely ever attended with much bleeding. In cases of simple laceration, wash the parts with warm water, and draw the edges as closely together as possible with a narrow strip of adhesive plaster. Should swelling or inflammation take place, apply a poultice. In very severe cases, the same treatment must be adopted as directed under the head of gunshot wounds.

Gunshot Wounds.

These partake of the character both of lacerated and contused wounds. They seldom bleed much, except very large vessels are divided. The vitality of the parts in the vicinity of the injury is destroyed, and more or less sloughing is the consequence.

TREATMENT. — When the ball, or any other foreign matter remains in the wound, it ought to be removed, if this can be done without any serious injury or searching. After which the parts must be well cleansed with warm water, and the edges of the wound brought together as well as their unequal surfaces will permit, retaining them

with strips of adhesive plaster, and a bandage moderately tight. If the state of the wound from its violence does not admit of such treatment, apply lint spread with Basilicon, (No. 11,) and over this warm poultices. The poultices should be changed often, and if the wound discharges matter it should be frequently cleansed with warm water and spirits. Should there be much pain or irritation, a full dose of laudanum may be given, and repeated as often as circumstances may require. Should there be appearances of gangrene, and a disposition to slough, the case must be treated as laid down under the head of mortification.

Bruised and Contused Wounds

Are produced by blows and falls, which severely injure the parts underneath, without breaking the skin. Bruised wounds rarely bleed externally, but the blood often escapes from the injured vessels into the cellular substance, and among the muscles, causing swelling, and showing through the skin, which is the cause of the dark or "black and blue" color observed in these injuries. In very serious contusions, the nerves are so deadened that the sensibility of the part is destroyed, and the pain is less than it is in those that are less severe. When the bruise is not very severe, the blood which is effused into the flesh will be gradually absorbed, the color change to a brownish or yellowish, and finally disappear, the swelling subsides, and a perfect restoration takes place in the course of a week or two; but if the parts have been injured beyond a certain

degree, the vitality being much lessened or destroyed, suppuration and sloughing will follow, and the injury be afterwards repaired by granulation and cicatrization.

The best applications to recent bruises, are spirits and water, Laudanum, (No. 16,) Ether, (No. 21,) salt and vinegar. These stimulate the action of the vessels, hasten reaction, and promote absorption of the effused blood. In severe and extensive bruises, when reaction comes on, and there is a tendency to inflammation, leeches and purging medicines will be the most suitable remedies. In those cases in which suppuration and sloughing are to be expected, fomentations and poultices must be used to quicken these processes. After the suppurating or sloughing process is completed, the fomentations and poultices should be discontinued, and the sore treated as a common ulcer. Where there is much pain or irritation, an Opium Pill, (No. 37,) may be given, as occasion may require, the bowels should be kept open with Epsom Salts, (No. 3,) or Purging Pills, (No. 34,) and the strength supported by Quinine, (No. 41,) or Tincture of Bark, (No. 28.)

Poisoned Wounds.

The bites of poisonous serpents are followed in a short time by pain in the wounded part, nausea, a full, strong, agitated pulse, swelling, fainting, vomiting, and convulsions. The teeth chatter, and the pains and groans of the sufferer indicate his approaching dissolution.

TREATMENT. — Apply immediately a tight ligature round the limb directly above the wound, and suck the

wound well for some time, which may be done with safety provided there is no soreness about the mouth at the time ; then burn the part with caustic, or a rod of iron heated to a white heat. After this treatment has been adopted, remove the ligature, and treat it as a common sore. Within a few years past the spirits of hartshorn has been somewhat extensively tried as an antidote to the poison of the rattlesnake. It is applied to the wound, and taken internally. Cases have been reported in which it was used with success, when the system was under the full influence of the venom.

Sprains.

A sprain is commonly produced by falling, slipping, running, or jumping. The effects of a sprain are often of long continuance.

TREATMENT. — The limb should be kept at rest, a dose of Salts, (No. 3,) or Purging Pills, (No. 34,) taken, and the diet should be light. The part may be bathed with wormwood, simmered in vinegar, and a little salt added. The anodyne liniment is a good application ; volatile liniment, mixed with laudanum, is also an excellent remedy. If the joint becomes hot, dry, and sore, leeches should be applied until the inflammation is reduced. Sugar of lead water, or a solution of white vitriol, should be applied after the leeches are removed.

Wounds of the Scalp.

These require no peculiarity of treatment, unless an artery be cut, in which case it is often difficult to stop the bleeding. It is rarely necessary to take up an artery in this situation, and very difficult to find it, should it be attempted; the bleeding must therefore be arrested by compression. The hair should be shaved off, the parts well washed, and the edges drawn together with adhesive plaster; or one or more stitches if necessary, then apply a compress and bandage. The stitch should be taken deep in the scalp, and the wound firmly closed, which will usually stop the bleeding.

Wounds of the Throat.

These are often made by attempting to commit suicide, and may sometimes occur accidentally. First secure the blood vessels and stop the bleeding. If the windpipe is cut partly through, or completely divided, bring the edges together by stitches; the needle should be passed through the membrane that covers the windpipe and not through the windpipe itself. The head must be brought forward upon the chest, and secured in that position. But little of any thing should be swallowed, the mouth may be frequently moistened with lemonade, and the patient be supported with clysters of gruel, or broth, to which laudanum may be added to prevent their returning.

Wounds of the Abdomen.

These may be superficial, wounding the flesh only, without penetrating the cavity. These wounds are not dangerous, and are to be treated like wounds in other parts, by closing them with strips of adhesive plaster, or stitches, and a compress and bandage. They may penetrate the cavity without wounding any of the external organs. Extensive wounds of this kind are often recovered from, but are not free from danger. The symptoms peculiar to wounds which open this cavity, are vomiting, faintness, and an immediate and universal coldness and paleness. These wounds should be closed by sutures, passing the needle deep among the muscles but not through the peritoneum, and strips of adhesive plaster should be applied between the stitches. The patient should be bled from the arm, and leeches applied, if there are symptoms of inflammation. Physic must not be given, nor should any solid food be taken for a number of days. A third kind of these wounds is where, besides penetrating the cavity, the intestines, or some other internal organ, is injured. The escape of the contents of the stomach, bowels, or gall bladder, is a sure sign that these organs are wounded. Wounds of this description are almost always fatal, but an attempt should be made to save the patient's life, by keeping him perfectly quiet, and upon the lowest fluid diet, by the use of warm fomentations and emollient poultices, and the strictest employment of antiphlogistic remedies.

Wounds of the Chest,

Like those of the abdomen, are of three kinds: superficial, penetrating the cavity, and wounding the lungs, or other viscera. Those which are superficial do not differ from common wounds, and are managed in the same manner, except when one of the arteries is divided between the ribs, when it will be necessary to press the fingers upon the mouth of the vessel until the disposition to bleed ceases, after which the wound must be closed by a suture passing through the muscles, but not through the pleura or lining membrane. When the cavity is opened, the breathing will be difficult, and air will be alternately drawn in and forced out through the wound with a hissing noise; there will be irritation in the larynx; cough, suffocation, extreme anxiety, and if the lungs be wounded, blood will be coughed up, which will be florid and frothy. In these cases air is effused into the cellular substance, at first in the vicinity of the wound, and often spreading to a considerable extent. The flesh has a crackling feeling, like parchment. This symptom is called emphysema. When the lungs are wounded, the patient may die from the loss of blood, inflammation, or emphysema. While the bleeding continues, the wound should not be closed, as the blood in the cavity of the chest may occasion irritation and inflammation. If the loss of blood from the wound, or the mouth, is not very great, it will be proper to bleed largely from the arm, both as a means of arresting the hemorrhage and of preventing inflammation. Sir Astley Cooper says: "There is but little danger of bleeding too much in one of these cases, as it is an object not

only to diminish the flow of the circulation, but the quantity of blood in the pulmonary vessels." Should inflammation terminate in an effusion of pus or bloody serum into the cavity of the thorax, it may be drawn off by the operation called paracentesis. Emphysema is less dangerous than inflammation. The treatment consists in applying a bandage around the chest, tight enough to prevent any crackling during a deep inspiration. The patient should lie on the wounded side. The most perfect quietude is essential to recovery in all cases of wounds of the chest or lungs.

Wounds of the Joints.

If these wounds are not properly treated at the commencement, they are attended with considerable danger. If the utmost attention is not paid to the immediate closing of the wound, inflammation and suppuration takes place. The most violent constitutional irritation follows, and generally great swelling and excessive pain in the joint.

Wounds of the joints, when improperly managed, are very tedious in healing, and a stiffness of the joint is the usual consequence. Sir A. Cooper remarks: "All ill effects from wounds of the joints may be prevented by care and skilful treatment."

TREATMENT. — The wound should be closed without any delay, with a needle and thread, passing through the skin only, and bringing the edges perfectly together. A pledget of lint, dipped in blood, is then to be applied over the surface of the wound, and over this strips of adhesive plaster. The joint must then be covered with soft linen

moistened with lead water, or spirits and water, a splint applied to the limb to prevent its motion, and a roller bandage to secure the whole. The bandage must not be so tight as to impede the circulation, or press too hard upon the wound. Purging medicines should be avoided as much as possible, and a rigid abstinence enforced. In eight days the thread may be cut and drawn away, but the adhesive plaster and lotion should be continued. Three weeks should elapse before the patient be allowed to quit the bed. Should inflammation and suppuration ensue, they must be treated as in other cases. Should a stiffness in the joint remain, frictions with oily liniments, exercise and motion of the limb, persevered in for a long time, will be the best means of restoring it.

Wounds of Tendons.

The heel-cord or tendon Achilles, and several other tendons and muscles, are sometimes lacerated by violent efforts and strains. As there is no external wound, all that is necessary to be done in these cases is to keep the limb in a proper position to prevent deformity, and to guard against inflammation by the ordinary means. In all wounds of the tendons, and other deep seated parts, in which there is an opening in the skin and flesh covering them, the external wound should be closed as soon and as accurately as circumstances will permit, in order to prevent the action of the air upon the parts, as this is undoubtedly one of the principal causes of inflammation.

Fractures.

A fracture is a division of a bone into two or more fragments, occasioned by external violence. Fractures may be either simple or compound.

SIMPLE. — When the bone is divided, and the soft parts remain uninjured.

COMPOUND. — When there is a corresponding wound in the soft parts, by which the fractured extremity of the bone becomes exposed.

SYMPTOMS. — Loss of motion, shortening and deformity of the limb, swelling, tension, pain, &c., but particularly the crepitus, or grating sensation, occasioned by the ends of a fractured bone when they are moved and rubbed against each other.

Fracture of the Nose.

To replace the bones of the nose when broken, pass any smooth instrument into the nostril, and using it as a lever, raise the depressed fragments to their proper level, while with the other hand you mould them into their proper shape. If inflammation follow, treat it as before recommended.

Fracture of the Lower Jaw.

This bone is sometimes fractured near the chin, at others, near the angles of the jaw. Let the patient's head be firmly held, while the operator introduces the fingers of one hand into the mouth, and with the other brings the broken parts together; then apply pasteboard

previously wet, along the side and under the jaw, or if this cannot be had, apply a thick compress of lint directly over the fracture; this is to be secured by means of a bandage passed under the chin and over the head. The patient must be kept perfectly quiet and fed entirely on liquids, and avoid moving the jaws until the bone has become united.

Fracture of the Collar Bone.

This fracture may easily be detected by passing the finger along the bone, and a crepitus may easily be produced by moving the arm. To reduce it, apply a large cushion underneath the armpit, and let it be secured by a bandage passed over the arm of the affected side, round the body. The fore-arm is to be supported across the breast by a sling. The patient must be kept very quiet.

Fracture of the Ribs.

Where a rib is suspected to be broken, it may be ascertained by placing the hand on the suspected part, and directing the patient to cough, when the grating sensation will be felt. A strengthening plaster should be applied to the side, and over it proper compresses; then put a broad bandage firmly around the chest so as to impede the motion of the ribs, and observe a low diet.

Fracture of the Arm.

This fracture is easily discovered. To reduce it, seat the patient in a chair, and relax the muscles of the arm

by gently bending the elbow, and slightly draw the lower portion of the bone downwards until it can be perceived by the pressure of the finger that the ends of the bone are in contact. Then two splints, long enough to reach from the shoulder to the elbow, covered with tow or cotton, should be laid along, one on each side of the arm, and two smaller splints, one on the front and the other on the back of the arm, and secured in that position by a bandage moderately tight.

Fracture of the Fore-Arm.

One or both bones may be fractured, and are detected the same as other fractures, by the crepitus on turning the arm. Moderate extension must be made, until the bones are brought in a straight line and in contact. Then apply the splints and bandage, and support the arm in a sling, with the palm of the hand towards the breast.

Fracture of the Hand and Fingers.

When the bones of the hand are broken, apply a piece of adhesive plaster, folded cotton, or lint, lay the hand on a splint long enough to extend from the elbow to the end of the fingers, and secure it by a bandage as usual. In fractures of the fingers, make extension, and place the fractured portion in its place, then incase the fingers in softened pasteboard, and apply a narrow bandage.

Fracture of the Thigh.

SYMPTOMS.—Acute pain, inability to move the limb, a distinct crepitus when the two ends of the fracture are rubbed against each other ; the limb is shortened, and the toes turned inward. The patient is to be placed on a hard bed, the necessary extension is then to be made by a couple of assistants ; one must take hold of the limb above the fracture, and the other below it. The extension should be made in the direction of the lower fragment ; it should be slow, steady, and firm ; no sudden pulls will ever succeed. The operator should place his hands upon the broken ends of the bone, and match them together as soon as the muscles are sufficiently relaxed to allow the ends to meet ; next apply the splints and bandage in the following manner : The splints may be made of thick pasteboard, which answers a good purpose, for when softened with water it takes the shape of the limb, and when dry becomes a firm and even support. The splints should be lined with tow or cotton. The many-tailed bandage is the most convenient, and is made as follows : Take a strip of cotton about four inches in width, the same length as the thigh, measuring from the inner portion of the knee, and a sufficient number of other strips of the same width to cover the thigh ; each of the pieces is to be of a length a little more than sufficient to surround the limb ; then place the first strip on a table, and begin laying the other strips across it one by the side of the other, letting each lower one lap two inches on to the one above. The strips being all arranged across the piece first laid down, they are to be stitched in this posi-

tion with a needle and thread. The bandage should now be placed under the thigh, and the splints applied each side of the limb; then bring the lower tail or cross piece, first over the thigh, and cover this with the next one above, and so on until all the cross pieces are applied, the last of which is to be fastened with a pin. The limb should be placed on a pillow, or it may be laid in a box. Care must be taken to preserve it from being injured by the motion of the vessel, and to guard against pressure from the bed-clothes.

Fracture of the Knee-pan.

This fracture is readily detected by the hand. The bone is most frequently broken transversely or across, but occasionally, from great violence, the fracture may be longitudinal.

In case of a transverse fracture, the leg is to be extended, and the two portions of bone pushed close to each other, retaining them in that position by a bandage, in the following manner: take a roller of cotton cloth, of sufficient length, and apply the centre of it with tolerable tightness, just above the upper piece of the bone, then carry it round the thigh under the knee, where it is to be crossed and passed over the knee, directly under the bone, and then again under the knee, and above the knee during a number of turns. The limb must be kept extended by a long, broad splint, well covered with tow, placed under the ham, and secured to the thigh and leg by pieces of tape. In a longitudinal fracture bring the parts together, and retain them by moderate pressure with a bandage.

Fracture of the Leg.

The leg is composed of two bones, an inner, larger bone, (the tibia,) and an outer, smaller bone, (the fibula.) One or both may be broken. The tibia is more frequently broken, about two thirds of the way down. It is easily detected by passing the hand along the skin, although the displacement may not be great. It is not so easy to detect a fracture of the fibula, nor is it of much importance to do so. Extension must be made as in other fractures, sufficient to bring the broken surfaces together. Two splints only will be required, and they should be applied at the sides of the limb, and bandaged firmly. The limb may be supported on a pillow, and raised a little above the level of the body.

Fracture of the Foot and Toes.

The treatment is the same as in similar injuries of the hand and fingers.

Dislocations.

The symptoms of a dislocation are inability to move the injured limb, which is shortened, lengthened, or distorted; pain in the part affected, increased on motion; unusual depression at the joint.

Dislocation of the Lower Jaw.

This may arise suddenly while laughing, gaping, or from blows. It may be known by the difficulty in

speaking, the distortion of the mouth, and by the under jaw projecting forward.

MODE OF REDUCTION. — Place the patient on a low seat, cover the thumbs with a handkerchief, and then introduce them into the patient's mouth, as far back as possible, between the teeth of the upper and lower jaws; at the same time place the fingers firmly under the jaw, and then press the jaw forcibly down with the thumbs, and with the finger draw the jaw a little forward, and lift it into its place.

Dislocation of the Neck.

When the neck is dislocated, the head falls forward upon the breast, the patient is instantly deprived of sensibility, and if not quickly relieved, death ensues.

To reduce it, set the patient on the ground and let an assistant support him; then stand behind him and raise the head from the breast; let the assistant press down the shoulders, while the head is pulled upwards until the dislocation is reduced. If this does not take place with moderate extension, it may at the same time be gently moved from side to side. When the reduction is completed, a sudden crack or noise is heard, and the patient partially recovers his faculties.

Dislocation of the Shoulder.

This joint is more frequently dislocated than any other. When the dislocation happens downward, the arm is a little longer than in the natural state, and the head of

the bone may be felt in the armpit; the arm cannot be moved forward or backward, and there is a depression at the joint. When the dislocation is upward, there is an elevation behind the shoulder and a shortening of the arm. It may also take place inward and outward.

To set the shoulder joint, let the patient be placed in a chair, pass a towel round the chest under the armpits, so that he may be firmly held; then let the operator gradually and strongly extend the limb, with his knee in the armpit for a fulcrum, lift the shoulder bone into its place. The arm should be raised at right angles with the body. In extending the arm the force should be applied for three or four minutes, or longer, in order to give the muscles and cords time to relax. If the head of the bone be thrown forward on the collar bone the extension should be carried a little backward; if backward, a little forward. The arm should be carried in a sling to support the shoulder.

Dislocation of the Elbow.

In this case the fore-arm is half bent, and every attempt to extend it occasions acute pain. The situation of the bones is easily discovered. Gradual extension should be made by assistants in opposite directions, while the operator grasps the joint with both hands and presses the bones into their proper places. Afterwards the arm must be kept perfectly at rest in a sling. Dislocations of the wrist and fingers require only gentle extension to effect their reduction.

Dislocation of the Thigh.

When the thigh bone is dislocated upward and outward, the limb is an inch or two shorter than the other, and the knee and foot are turned inward, and cannot be turned outward. When the dislocation is downward and inward, the limb is from two to three inches longer than the other, and the knee and foot are turned outward and cannot be brought back. In setting the thigh bone, the patient must lie upon his opposite side, and the lower part of the trunk must be firmly fixed by girts, or it may be held by assistants. The limb must then be extended by means of a sheet, or slings fastened about the thigh, a little above the knee. When the head of the bone is brought on a level with the socket by the assistants, the operator should force it into the cavity by pressure inwards. When the dislocation is downward and inward, the extension is to be made downward and outward, while the upper part of the bone is to be pushed outward by the operator.

Dislocation of the Knee-pan.

The knee-pan may be dislocated in three ways,—outward, inward, and upward. The dislocation on either side is easily reduced by relaxing the muscles of the leg, and bending the thigh, then pressing down the edge of the bone which is most remote from the joint.

In the dislocation upward, a bandage of cotton cloth is to be passed a number of times round the lower part of the thigh, immediately above the knee bone, so as to

press with some force upon the bone. To this bandage is to be attached another, which is to be carried on each side of the leg, and under the foot, and to be firmly attached to that round the thigh, that it may gradually draw down the knee bone. As the limb should be kept extended, a splint may be placed behind the knee and be confined to the limb by a roller.

Dislocation of the Knee.

The knee joint may be displaced in four different directions, — inward, outward, forward, and backward, but the bones are replaced the same way in all. A firm, gradual, and constant extension of the leg is all that is necessary to enable the heads of the bones to ride over each other, and to slide into their places. The thigh must be held fast by one assistant while another makes gentle extension upon the leg. Great injury is often done to the ligaments in a dislocation of the knee, followed by inflammation. In this case, the usual means for reducing inflammation must be used.

Dislocation of the Ankle.

Dislocations of the foot inward or outward, are the most frequent, and are easily reduced. In accomplishing the reduction, relax the muscles by bending the leg on the thigh; let the knee be firmly held by one assistant, and the foot gradually drawn into a line with the leg by another, while the operator presses the bones into their proper places.

Dislocation of the toes is to be treated the same as that of the fingers.

Compound Fractures.

These are very serious, and require the assistance of a surgeon where it can be obtained. A person may meet with an accident whereby a joint may be dislocated, a bone be broken, and a severe wound and contusion be inflicted, all at the same time. In case no proper aid can be procured, the following treatment must be pursued : The first thing to be done is to stop the bleeding from the wound ; then reduce the dislocation ; afterwards dress the wound. The great object is to make the compound fracture a simple one by healing the wound as quickly as possible, which in some cases is a very difficult business. The wound must be gently cleansed of all extraneous substances, such as splinters of bone, dirt, &c., then bring the edges lightly together with strips of adhesive plaster. The limb should then be covered by a light, wet linen cloth, which must be kept moistened by sprinkling it with cold water. The object of this is to keep down the inflammation which generally ensues. If the injury is in the thigh, or leg, it will be necessary to keep the bed clothes away from it that the evaporation may be kept up ; this can be done by nailing three or four hoops to two laths, over which only the sheet should lie, taking care it should be so fixed that there may be a current of air, otherwise the limb will be damaged, instead of being relieved. If the wound heal soon, much of the danger ceases, and after a few days, the accident is to be treated as if there had been no wound.

Rupture.

Hernia or rupture consists in the protrusion of some part of the bowels, or other contents of the abdomen, chiefly in the groin, scrotum, or navel. It appears as a tumor, and in some persons comes on gradually from laxity of the constitution, but most frequently is formed suddenly, in consequence of violent bodily exertions, as leaping, carrying great weight, &c. When the tumor from any cause becomes inflamed, and is attended with pain, soreness, and tension, followed by sickness, vomiting, and obstinate costiveness, an effort must immediately be made to restore the protruded part.

TREATMENT. — Place the patient on his back, with the hips elevated a little above the head, and the thighs raised towards the body. Then make a steady, and gradually increased pressure on the tumor with one hand, in the proper direction, while with the fingers of the other you attempt to reduce the bowels by small portions at a time. Continue the effort twenty or thirty minutes, but without violence. If this fail, the patient should be bled to fainting, when another attempt must be made. If this also fail, he is to be put into a warm bath, and while there the attempt must again be repeated. Next try the effect of ice or snow, mixed with common salt, and applied to the tumor, or try the strongest solutions of nitre and sal ammoniac mixed, or lotions of ether. If the reduction be not effected by this course, give an injection of half a drachm of tobacco, boiled for ten minutes in half a pint of water, and repeat it if necessary in half an hour. A final attempt is now to be made, and if ineffectual, an

operation must be performed by a competent surgeon. To guard against the dangers of a rupture, persons subject to this complaint should wear a truss.

Inflammation of the Eye.

SYMPTOMS. — A sense of heat and pricking pain in the eyes, and inability to bear the light; the eyes are red and the eyelids swollen; there is a flowing of hot tears, and a feeling as if something was in the eye. In severe cases there is pain in the head, with a quick, full pulse.

TREATMENT. — If caused by some foreign substance in the eye, it must be removed. If it can be seen, it may readily be removed by the end of a probe or bodkin, covered by a silk handkerchief. Should one of the lashes fall into the eye, it may be removed in the same way. When dust, or any small particles that cannot be easily extracted, get into the eye, put an eye-stone into it, which causes no pain, and comes out easily, generally removing the offending matter. Sometimes small pieces of steel or iron get into the eye; these may often be attracted and removed by a magnet, if not they must be removed with the point of a probe, or a small penknife. The inflammation must be subdued, if severe, by applying two, three, or more leeches to each eye, (if both eyes are affected,) after which let the eyes be fomented with a decoction of camomiles and poppy heads, or if these cannot be had, with warm water. The fomentation should be constant, by cloths wetted with it and frequently renewed. At night, a poultice made of the flour of slippery elm, mixed

with equal parts of milk and water, should be applied tepid, and next to the skin. When the inflammation has somewhat subsided, the following eye-water may be used frequently. Take of White Vitriol, (No. 52,) ten grains, Sugar of Lead, (No. 51,) eight grains, pure water, six ounces, mix. Dissolve the white vitriol and sugar of lead in the water, let it stand and settle, then pour off the clear solution for use.

Persons Apparently Drowned.

As soon as the body is taken out of the water, the clothes must immediately be taken off, the body wiped dry, and wrapped up in warm blankets. In cold weather he should be placed near the fire, but in warm weather between heated blankets in the open air. The body should be placed on the back, with the head a little raised, and gently rubbed with flannels; and bladders, or bottles filled with hot water, bags of heated salt, or sand, should be applied to the pit of the stomach, between the thighs, under the arm pits, and to the soles of the feet. Should no signs of life appear, immerse the body in a warm bath. The pipe of a common bellows should be introduced into one nostril, carefully closing the other, and the mouth: blow the bellows gently until the lungs are inflated, then gently press the breast up and down in imitation of natural breathing. This process should be frequently repeated, at the same time the other means are to be continued, such as frictions, fomentations, and the warm bath. This treatment should be persevered in for some considerable time. When the patient is able to

swallow, a little warm wine or weak brandy and water may be given.

Fistula.

A fistula is an ulcer which is very obstinate in its character, attended with hardness, and sinous openings with callous edges. There are three species, namely: fistula in ano, situated in, or near the rectum or anus; fistula in perineo, situated in the part between the anus and the testicles, and communicating with the urethra; fistula lachrymalis, a sinous ulcer situated in the duct leading from the inner corner of the eye.

The fistula in ano, is an abscess or ulcer, in the neighborhood of the fundament, emitting a fetid discharge, with callous edges, preceded by an inflamed, hard swelling.

TREATMENT. — When the tumor first appears, it is advisable to endeavor to disperse it by the application of leeches, and washes of sugar of lead or white vitriol. The bowels must be kept open by Sulphur, (No. 1,) or Cream of Tartar, (No. 2,) and the diet should consist of rye, or Indian meal. If, however, the formation of matter cannot be prevented, the swelling must be poulticed. When the matter is fully formed, the tumor must be opened; should it not heal, which most probably will be the case, a surgeon must be consulted.

FISTULA IN PERINEO. — This disease is an abscess which terminates in a fistulous opening into the perineum, through which the water passes, not being able to flow through the natural channel. It requires the same kind of treatment as the fistula in ano, but a surgeon must be consulted.

FISTULA LACHRYMALIS. — A swelling and inflammation in the inner corner of the eye, occasioned by an obstruction in the duct, which conveys the tears. In the beginning of this complaint the tears are constantly running over the cheeks. When a fistulous opening is formed, the difficulty can only be relieved by an operation: inserting a silver tube into the obstructed duct for the conveyance of the tears.

Poisons,

Are those substances, which, when introduced into the system, whether by the mouth or the skin, produce deleterious, dangerous, or fatal effects.

When a person in perfect health is suddenly attacked, after eating or drinking, with violent pain and cramp in the stomach, severe vomiting, convulsions, and a sense of suffocation, giddiness, delirium, or unusual drowsiness, there is strong presumption that he has been poisoned. When such is the case, and there is no knowledge of what kind of poison has been taken, no time should be lost in endeavoring to remove it, either by the stomach pump, if one be at hand, or by exciting full and copious vomiting.

Poisoning by Arsenic,

Is characterized by violent burning, pain in the stomach and bowels, great constriction in the throat, unquenchable thirst, retching, vomiting of bilious and bloody matter, difficulty in making water, cramp, convulsions, clammy sweats, death-like countenance, red, sparkling eyes, and delirium; death soon closes the awful scene.

TREATMENT. — The best antidote for the poison of arsenic, is the hydrated oxide of iron in the moist or pulpy state. It must be given in doses of a table-spoonful to an adult, of a dessert-spoonful to children, every five or ten minutes, until relief is obtained. When this cannot be procured, the poison should be dislodged as far as possible, by producing full vomiting, either with the finger or a feather, and administering an emetic of half a drachm of White Vitriol, (No. 52,) with copious draughts of sugar and water, milk, flaxseed tea or barley water. The stomach pump should be used if one can be obtained. Large doses of magnesia are reported by some physicians to have proved efficacious. Should the patient survive, great attention must be paid to the subsequent treatment. Convalescence is generally long and distressing, therefore it is of the utmost importance to attend to the diet; milk, rice, gruel, and similar bland articles, should only be allowed. Should inflammatory symptoms arise, they must be treated on general principles.

Poisoning by Corrosive Sublimate.

Corrosive sublimate, red precipitate, and other preparations of mercury, when swallowed in over-doses, are violent, irritating, and corrosive poisons. The symptoms are a harsh, astringent, metallic taste in the mouth, a tightness and burning sensation in the throat, burning pain in the stomach and bowels, vomiting, purging of bloody matter, stupor, convulsions, and death.

TREATMENT. — Mix up as quickly as possible, the whites of a dozen or more eggs, with two pints of cold

water, and give a glassful every two minutes. Wheat flour and water is also good. Milk may also be swallowed plentifully. Should inflammation ensue, leeches and fomentations must be applied, and the usual treatment in such cases adopted.

Poisoning by Copper.

The symptoms are pretty nearly the same as those of mercury, and the treatment consists in giving the whites of eggs as ordered in the preceding article.

Poisoning by Antimony.

Some of the preparations of antimony are poisonous in large doses. The symptoms are vomiting, pain and cramp in the stomach, and convulsions.

TREATMENT. — Copious draughts of sugar and water, tickling the throat with a feather to excite prompt vomiting, followed by a decoction of Peruvian bark, or the bark in powder diffused in water.

Poisoning by Lunar Caustic.

In an over-dose, lunar caustic produces the same effects as the corrosive poisons.

TREATMENT. — Dissolve one table-spoonful of common salt in a pint of water, and give a glassful every five minutes: it acts by converting the poison into the insoluble chloride of silver.

Poisoning by Saltpetre.

SYMPTOMS. — Heat and pain in the stomach, vomiting and purging of blood, great prostration, convulsions, and sometimes death.

The treatment consists in the speedy removal of the poison from the stomach, by administering a prompt emetic of mustard and water, after which flaxseed tea or barley water; small doses of Laudanum, (No. 16,) may be given to allay the pain and irritation, and cordials to sustain the sinking powers of the system.

Poisoning by Lead.

The symptoms produced by this poison, introduced into the system either by the mouth or skin, are spasms, palsy, obstinate constipation, colic pains, rigidity of the abdominal muscles, sometimes salivation, giddiness, debility, torpor, convulsions, and death.

TREATMENT. — If the patient do not vomit, give an emetic of half a drachm of White Vitriol, (No. 52,) then give a large dose of Epsom Salts, (No. 3,) which acts as an antidote, by forming the inert sulphate of lead; this may be followed in an hour by thirty or forty drops of laudanum. If the colic pains continue, the salts and laudanum may be repeated. Dr. Christison says, "I have never seen the second dose fail to remove the colic."

Poisoning by Opium.

SYMPTOMS. — A stertorous breathing, a dark suffusion of the countenance, a full, slow, and laboring pulse, an

almost total insensibility to external impressions ; and—when a moment of consciousness has been obtained by violent agitation, or by powerfully irritating applications—a confused state of the intellect, and an irresistible disposition to sink back into comatose sleep, for the first few hours, attend the operation of the poison. The skin at length becomes cool and clammy, the extremities cold, the pulse feeble, thread-like, scarcely perceptible, the countenance deathly, the respiration slow, interrupted, almost gasping ; there is a torpor little short of absolute, death-like insensibility. Death soon follows, unless relief is afforded.

TREATMENT. — If the poison has been swallowed in liquid form, the stomach pump should be used as early as possible, before the opium has produced its full effect upon the system. If the stomach pump is not at hand, give immediately half a drachm of White Vitriol, (No. 52,) and promote the operation of the emetic by a very free use of warm drinks, by irritating the fauces with a feather, and by keeping the patient in motion : if the insusceptibility to the action of the remedy is very great, dash cold water upon the head and shoulders. After the poison is evacuated, the strength must be supported. For this purpose, ammonia, strong coffee, lemonade, or vinegar may be given. We should never despair of success as long as the heart beats, for recoveries sometimes take place under what appear to be the most desperate circumstances. If the above means fail, and the patient appear to be near dying, artificial respiration should be resorted to, by alternately inflating and exhausting the lungs, until the poison has expended its force and the powers of life rally.

Poisoning by Acid.

Oil of vitriol, aqua-fortis, muriatic acid, and oxalic acid, are all violent corrosive poisons when swallowed in a concentrated form.

SYMPTOMS. — Sour, acrid taste, burning and soreness in the mouth, throat, and stomach; a shrivelled and excoriated appearance about the mouth, and other parts touched by them, intolerable pain in the belly, glazed countenance, cold, clammy sweats, convulsions, and death.

TREATMENT. — For aqua-fortis and oxalic acid, common magnesia (not calcined) and chalk are the proper antidotes: either of these may be mixed thick, in cold water, and drank copiously. To facilitate vomiting, give half a drachm of White Vitriol, (No. 52.)

For oil of vitriol and muriatic acid, the best remedy known is the calcined magnesia, mixed in water, and given freely. If, however, magnesia is not at hand, dissolve half an ounce or an ounce of soap in a pint of water, and give a glass full every two or three minutes; or chalk, or whiting may be used in the same way. Help, however, in these cases, to be effectual, must be immediate; not a moment's time should be lost.

Poisoning by Alkalies.

Potash, caustic soda, and the preparations of ammonia produce similar symptoms to other irritating poisons; their action is counteracted by vinegar, lemon juice, the citric and tartaric acids.

Poisoning by Fish.

SYMPTOMS. — In a few hours, and sometimes not for nearly a day after eating the fish, the patient is seized with chills, pain in the stomach or head, restlessness, thirst, eruptions on the skin, resembling nettle rash, dizziness, convulsions, and sometimes death.

TREATMENT. — If the symptoms come on soon after eating the fish, give an emetic; but if a longer time has elapsed, a strong dose of Epsom Salts should be given, and lemonade or vinegar and water drunk freely. The stomach must be quieted by Bi-carbonate of Soda, (No. 8.) and Laudanum, (No. 16.) The irritation of the skin may be relieved by bathing with tepid water, alcohol and water, salt, or camphor and vinegar.

Syphilis, or Venereal Disease.

This disease is caused by a poisonous matter, contracted in sexual intercourse with an infected person. The most common form of the disease is chancre. It makes its appearance in some cases as soon as three or four days after exposure, sometimes a few days later, and in some instances not for six or eight weeks. A chancre appears in the form of a small pimple, generally about the head of the penis or on the foreskin, which ulcerates, and discharges a limpid matter. The form of this ulcer is generally round or circular, is excavated, has a thickened base, and secretes a puriform matter.

TREATMENT. — In the commencement let the chancre be touched with Lunar Caustic, (No. 59,) and afterwards

dressed with a piece of lint, moistened with black wash, (see Recipes,) every night and morning. The bowels should be opened with a dose of Epsom Salts, (No. 3.) One Blue Pill, (No. 36,) should be taken twice a day until a copperish taste is perceived in the mouth, and the gums become tender; then take only one pill every day, taking great care not to produce salivation. Should the pills operate on the bowels, add a quarter of a grain of opium to each dose, or eighteen drops of laudanum. Great attention should be paid to cleanliness; the sore should be washed with warm water each time before applying the black wash. The patient should avoid exposure to cold and moisture. The diet should be light, consisting of fresh animal food, bread, rice, and vegetables, and he should abstain from every thing of a heating or stimulating nature. If the sore assume an indolent character, touch it with lunar caustic, or sprinkle a small quantity of Red Precipitate, (No. 55,) on it every two or three days, and continue the application of the black wash. In case of bubo, endeavor to disperse it by freely opening the bowels with Epsom Salts, applying cold washes to the part, composed of half an ounce of Sugar of Lead, (No. 51,) to a pint of vinegar and water, or one ounce of sal ammoniac to a pint. A piece of mercurial ointment about the size of a small nutmeg, should be rubbed on the inside of the thigh and round the edges of the swelling, night and morning. Should the bubo become hard and painful, it will be necessary to poultice it, and renew it frequently, until the tumor becomes full and pointed, when it should be opened with a lancet. After this, dress it with dry lint, and continue the poultice for a few days,

then dress with Basilicon, (No. 11.) Should the sore be foul and not disposed to heal, mix red precipitate with the salve.

When the disease has been neglected, or improperly treated, it becomes constitutional. The throat becomes red and inflamed, and deep, excavated ulcers are formed. The ulceration, if not checked, gradually spreads to the palate, tonsils, tongue, &c. The skin is covered with copper-colored blotches, which ultimately become fetid, running sores. The bones and cartilages become affected. Deep-seated pains arise, especially in the night time. In short, in the worst cases of the disease, a universal rotteness pervades the flesh, skin, and bones. In this stage of the disease, cleanliness is indispensably necessary. If the skin is first affected, the patient should take a bath every day, well washing himself with soap. After bathing, one third of the body should be rubbed over with a solution of corrosive sublimate, made by mixing two teaspoonfuls of Mercurial Solution, (No. 30,) with six teaspoonfuls of water. The day following, another third should be served the same way, and the rest of the surface on the third day. The diet should consist of nothing but vegetables and milk. Spirituous liquors are a violent poison in the disease. If the throat is ulcerated, it must be gargled with a solution of borax, and a portion of it swallowed. An even tea-spoonful of the powdered borax should be dissolved in half a pint of water, and a table-spoonful swallowed four times a day. At the same time fifteen or twenty drops of diluted nitric acid, mixed with half a tumbler of water, should be drank night and morn-

ing. In addition to this, one grain of Calomel, (No. 43,) should be taken every day until a coppery taste is perceived in the mouth; it should then be omitted for three or four days, when it should be taken again, and continued in this way for four or five weeks, or fifteen drops of the Mercurial Solution, (No. 30,) may be taken instead of the Calomel.

Phimosis.

A chancre is the most frequent cause of this complaint, though it is sometimes brought on by the clap. The foreskin becomes swollen, and cannot be drawn back.

TREATMENT. — If the foreskin can be drawn back with pain and difficulty, a phimosis may possibly be prevented by poulticing the penis, keeping it up, doses of salts, and by rest. When the foreskin cannot be drawn back, injection must be thrown under the skin; ten grains of Sugar of Lead, (No. 51,) may be dissolved in one ounce of warm water; this should be repeated frequently. Apply warm poultices every two hours. Move the foreskin occasionally to prevent its adhering to the glands. When matter is confined under the skin, or the chancres cannot be made to heal, the part must be laid open. This must be done by passing under the foreskin a pair of sharp scissors, and slitting it up until the head is uncovered. Then apply lint, and over it soft poultices. The chancres may then be dressed as before directed.

Paraphimosis.

In this disease, the foreskin being drawn back, cannot be brought forward. When this occurs, an attempt must be made to reduce it. Wash the part well with warm water, then make a pressure on the glands with the fingers, four or five minutes, to diminish its size, by squeezing the blood out of it, and in this state try to bring the skin forward. If this fail, use a wash of half an ounce of Sugar of Lead, (No. 51,) to a pint of water, and use poultices and purgatives. If these prove ineffectual, it must be divided with a sharp instrument and dressed as directed in phimosis.

Dropsy of the Scrotum.

This is a colorless, smooth, transparent swelling of the scrotum or bag, gradually extending itself from the lower to the upper part.

TREATMENT. — If attended to on the first indications of the disease, it may sometimes be removed by keeping applied to the part cloths wet with a strong solution of sugar of lead, or sal ammoniac; but in most cases, the only remedy is an operation, which must be performed by a surgeon.

Gonorrhœa or Clap.

This disease arises from impure coition; the time of its appearance is different in different constitutions. With some it will show itself in three or four days, with others in two or three weeks; usually, however, from six to twelve days.

SYMPTOMS. — It commences with an itching of the glands or head of the penis, and a sense of soreness along the course of the urethra: this is soon followed by an appearance of whitish matter, and an uneasiness in making water. In a few days, the discharge of matter increases considerably, and assumes a greenish, or yellowish hue, and becomes thinner: the orifice of the urethra will also become inflamed, the stream of urine is smaller than usual, and the patient experiences a considerable degree of pain, heat, and scalding in every attempt to make water. In severe cases, when the inflammation runs high, the patient will be troubled with painful erections, which often occur involuntarily, when the patient is warm in bed; this is termed *chordee*. Sometimes the foreskin becomes so swollen at the end that it cannot be drawn back; this is called *phimosis*: or being drawn back, cannot be brought forward, is called *paraphimosis*. As the disease advances, the symptoms become more severe and distressing, the bladder becomes irritable, exciting a frequent inclination to make water, which is discharged with difficulty, and often only by drops. Sometimes the glands of the groins enlarge and form *buboes*; and sometimes the testicles become swollen and painful.

Unless there be much inflammation, few or none of the last mentioned symptoms will arise, and only a discharge, with a slight scalding in making water, will prevail.

TREATMENT. — Abstinence from all stimulant food and drink, sexual intercourse, and undue exercise is absolutely necessary. The bowels should be kept gently open by some mild, cooling purgative. Mix equal parts of Balsam of Copaiva, (No. 20,) Spirits of Nitre, (No. 19,)

and Red Lavender, (No. 24,) and take one or two teaspoonfuls three times a day. When there is pain or scalding in making water, speedy relief may be obtained by drinking copious draughts of flaxseed tea, or barley water; half a pint may be drank every hour or two. In a few days, after the inflammation has subsided, and the discharge still continues, the following injection may be used. Dissolve, in a pint of pure water, twenty-five grains of White Vitriol, (No. 52,) and then add twenty grains of Sugar of Lead, (No. 51,) shake them well together, and let it stand for twelve hours; pour off the clear solution, and it is fit for use. A small syringe full may be used three or four times a day. If the glands of the groin swell, keep them wet with cloths dipped in a solution of Sugar of Lead, (No. 51.) Should the bladder be affected, give an injection of flaxseed tea, with a teaspoonful of Laudanum, and apply warm fomentations. For chordee, take an Opium Pill, (No. 37,) at bed time, and keep a rag wet with a solution of Sugar of Lead, round the penis; or the under surface of the penis may be rubbed with Mercurial Ointment, (No. 10,) mixed with a few grains of camphor and opium. (For phimosis and paraphimosis, see the Treatment under the head of Syphilis.) Swelled testicles are generally produced by the improper use of astringent injections, especially strong injections of nitrate of silver, or lunar caustic. Six or eight leeches should be applied immediately, and a warm poultice after they fall off. If leeches cannot be procured, apply the poultice alone, and let it be repeated every two or three hours, until the pain and inflammation subside. Sometimes cold applications will afford relief when

warm ones fail; in which case, cloths wetted with vinegar and cold water, or a solution of Sugar of Lead, should be applied to the testicles, and renewed as often as they become warm. In all cases the patient should confine himself to a horizontal posture, and keep the scrotum suspended by a proper bandage. If there is much pain, give a Dover's Powder, (No. 40,) at bed time. The bowels should be kept freely open with Salts, (No. 3,) or Seidlitz powder.

Gleet.

This affection consists of a discharge from the urethra, of a thin, slimy, whitish matter, and is most frequently the consequence of a mismanaged clap. It is often very tedious and difficult to cure.

TREATMENT. — Injections are not only serviceable, but absolutely essential to the cure. Thirty grains of White Vitriol, (No. 52,) dissolved in half a pint of pure water, forms an excellent injection in gleet; or the white vitriol and sugar of lead injection, recommended in gonorrhœa. Internally, take twenty drops of Muriated Tincture of Iron, (No. 31,) three times a day in water, or two drachms of Powdered Cubebs, (No. 49,) three times a day, or from thirty to sixty drops of Balsam Copaiva, (No. 20.) In order that this treatment may prove successful, it is of the greatest importance that the patient observe the following rules: let the diet be nourishing, but not stimulant; avoid intoxicating drinks; the habits must be regular, and the greatest attention paid to clean-

liness. Wash the parts daily with cold water. The cold bath every morning will prove very beneficial.

Stricture.

From various causes, the mucous membrane, lining the urethra, becomes thickened and inflamed, which partially or wholly obstructs the flow of urine. A spasmodic action of the part, produced by cold, drinking, and other acts of intemperance, may also obstruct the passage of the urine. Another, not unfrequent cause, is the use of strong injections of lunar caustic for the cure of gonorrhœa.

TREATMENT. — Avoid all exercise, high living, and stimulating drinks. The daily use of a bougie must be persevered in for a long time. Begin with one of moderate size, and increase it gradually. Be careful not to employ any force in introducing it. It may remain, at first, about twenty or thirty minutes, gradually increasing the time as the parts can bear it. First, when the urine is obstructed, the patient should be put into a warm bath, and the lower part of the bowels continually fomented with cloths wrung out in hot water. From thirty to sixty drops of Spirits of Nitre, (No. 19.) may be taken every two hours. When these means fail, or the stricture is of long standing, a surgeon should be consulted.

RECIPES.

Anodyne Liniment.

Take four parts of Soap Liniment, (No. 23,) and two parts of Laudanum, (No. 16,) mix together. This is an excellent application in old sprains and bruises, chronic rheumatism, and painful swellings without inflammation.

Alum Whey.

This is made by boiling one or two tea-spoonfuls of powdered alum in a pint of milk for a few minutes, and strain. Sugar may be added if desired. A wine-glassful may be taken three or four times a day.

Beef Tea.

Cut half a pound of fresh lean beef into small pieces, pour upon it two pints of water. Boil slowly for thirty or forty minutes, skimming it occasionally. Salt may be added to suit the taste. Chicken or mutton broth may be prepared in the same manner. If these preparations are desired to be more nourishing, a larger proportion of meat should be used, and the boiling continued one or more hours.

Cayenne Pepper Gargle.

One tea-spoonful of *pure* African cayenne, two tea-spoonfuls of common salt, two table-spoonfuls of vinegar, half a pint of boiling water, mix well together, and let it stand till cold, then strain. This gargle may be used with success in the early stages of inflammatory sore throat. It is also valuable in the sore throat of scarlet fever.

Cough Drops.

Take syrup of tolu, syrup of squills, of each three table-spoonfuls, wine of ipecac, spirits of nitre, of each one table-spoonful, paregoric, two table-spoonfuls, elixir of vitriol, one tea-spoonful, mix, and take a tea-spoonful every three or four hours.

ANOTHER. — Syrup of squills, paregoric, syrup of tolu, of each one ounce, wine of antimony, spirits of nitre, of each half an ounce, mix. Take a tea-spoonful every four hours.

ANOTHER. — Dissolve four table-spoonfuls of white sugar, and two table-spoonfuls of gum arabic, in half a pint of water, and add two table-spoonfuls of paregoric, one table-spoonful of spirits of nitre, three tea-spoonfuls of antimonial wine. Give a table-spoonful every two hours.

Chalk Mixture.

Take of prepared chalk, half an ounce, white sugar, powder of gum arabic, of each two drachms, oil of cinna-

mon, two drops. Rub them well together in a mortar, and add gradually eight ounces of pure water. The dose is a table-spoonful for an adult, frequently repeated; for children, a tea-spoonful or more according to the age. Shake it well before using.

Myrrh Mixture.

Take of myrrh in powder, one drachm, bicarbonate of potash, twenty-five grains, sulphate of iron, one scruple, sugar, two drachms, spirits of lavender, half an ounce, rose water, seven ounces and a half, (by measure.) Rub the myrrh with the rose water gradually added, then mix with these the spirits of lavender, sugar, and carb. potash, and lastly, the sulphate of iron. It should be kept in a well stopped glass bottle. The dose is half a wine-glassful, two or three times a day. This is a good tonic in dyspepsia, especially when attended with obstruction in females.

Brandy Mixture.

Take best brandy, cinnamon water, each one gill, the yolks of two eggs, white sugar, half an ounce, oil of cinnamon, two drops, mix them well together. This is a stimulant and nutritive draught, applicable to the sinking stage of low forms of fever. One or two table-spoonfuls may be taken occasionally.

Arrow Root Gruel.

Mix a table-spoonful with a little cold water, and add gradually while stirring, a pint of boiling water, let it

boil a few minutes and it is fit for use. It may be made with milk, or milk and water, and sweetened with sugar. This is an important article in the diet of the sick. Gruel of Indian meal, oat meal, or flour, is made in the same manner, but requires longer boiling.

Mustard.

One or two table-spoonfuls of mustard mixed in a tumblerful of water, will act promptly as an emetic, and in cases of emergency may be given with much certainty. In the forming, or even advanced stages of Asiatic cholera, it acts at times with great benefit.

Mustard Poultice.

Mix two or more table-spoonfuls with boiling water, to make a paste, which spread upon muslin or flannel. This poultice should be kept on the part as long as it can well be borne, bearing in mind, that in cases of insensibility it should be looked at occasionally, for if allowed to remain on too long it will produce a painful and troublesome sore. When the poultice has been removed, a linen rag soaked in sweet oil should be laid on the surface.

Charcoal Poultice.

To a poultice of bread and milk, or flaxseed and meal, add two or three table-spoonfuls of finely powdered charcoal. This is an excellent application to foul ulcers, removing the fetor and improving the condition of the sore.

Emollient Poultices,

Applied warm or cold, to bruises, sores, and swellings, as well as in cases of inflammation of the lungs, stomach, and bowels, give great ease and comfort. They are made by mixing with hot water, a decoction of poppy heads, vinegar, or milk and water, a sufficient quantity of Indian meal, flaxseed meal, bread, hops, or camomiles. In most cases, an emollient poultice should be applied as warm as can be comfortably borne, and renewed every two hours; to prevent its cooling too rapidly, it is well to lay a few folds of flannel, or a soft towel over it. When much pain exists, two or more tea-spoonfuls of laudanum may be poured over the poultice, or the parts may be gently bathed with a mixture of sweet oil and laudanum, warmed in a cup, before applying the poultice.

Yeast Poultice.

Mix a sufficient quantity of flour, or flaxseed meal, with half a pint of yeast, and expose it to a gentle heat until it begins to rise, when it may be applied. When yeast cannot be procured, this poultice may be made by thickening flour with a solution of bicarbonate of soda or saleratus, stirring in subsequently a solution of tartaric acid or cream of tartar. This is an excellent application to foul and gangrenous ulcers, one or two table-spoonfuls powdered charcoal may occasionally be added to it with advantage.

Cream of Tartar Lemonade.

Pour one pint of boiling water upon one table-spoonful of cream of tartar and a few pieces of lemon peel ; when cold, strain and sweeten to the taste. As a pleasant, cooling, and slightly laxative drink, this may be used freely in febrile diseases.

Apple Water.

Roast two or three apples, cut them into small pieces, and pour one or two pints of boiling water upon them. When cold, this makes a pleasant drink in febrile diseases. Sugar and lemon peel may be added to suit the taste. Dried apples will answer the same purpose.

Injections.

They are used either to produce an immediate evacuation from the bowels, to assist the operation of medicines given by the mouth, or to support the system where the patient cannot swallow, or where the stomach, from great irritability, or other causes, cannot retain nourishment or medicine. When it is desired to evacuate the contents of the lower bowels, an injection of one or more pints of cool, or tepid water, alone, or with one or two table-spoonfuls of common salt dissolved in it will generally answer. Common soap-suds is a very certain injection. Nourishing injections, of chicken, beef, or mutton broth, have succeeded in supporting life for a long time, where

swallowing could not be performed or the stomach retain nourishment, in which cases, they should be repeated every two or three hours. The usual quantity for an ordinary injection for an adult, is from two to four pints, and for an infant, from three to six table-spoonfuls, according to the age.

In cases of poisoning, particularly from narcotics, an injection of tartar emetic will frequently succeed in producing powerful vomiting, and prove the means of saving life where swallowing cannot be performed, or when the stomach pump cannot be procured.

The following are some of the ordinary mixtures for injections, when intended to act freely: Two table-spoonfuls of common salt or castor oil, four to six table-spoonfuls of molasses, and half a pint to a quart of warm water or flaxseed tea. Or, half a pint to a pint of senna tea, to which may be added from four to six table-spoonfuls of molasses, or sweet oil, or both.

Anodyne Injections

Are made by adding from twenty to fifty drops of laudanum, or two, four, or six table-spoonfuls of flaxseed tea, or starch water.

Seidlitz Powders.

Dissolve two tea-spoonfuls of the Seidlitz mixture in a tumbler half filled with cold water, and an even tea-spoonful of tartaric acid in another tumbler one fourth

filled with water ; mix the two together and drink during effervescence.

Tartar Emetic Ointment.

Take tartar emetic in fine powder two drachms, simple cerate one ounce, mix well together. The proportion of tartar emetic may be increased, when a speedy effect is required, or the skin is not very susceptible to its action. Care should be taken that the skin be entire, and that the application be not too long continued ; as otherwise very severe inflammation, and even gangrenous ulceration may take place.

Means of preventing Infection.

In all fevers of a putrid and malignant form, the atmosphere in a confined and unventilated apartment, soon becomes loaded with effluvia, from the breath, perspiration, and evacuations of the sick, which will reproduce the same disease in most persons, exposed for any length of time to its influence. To guard against this in every possible manner, is the imperious duty of the master of a ship, for on him alone depend all the efforts which shall be made.

Cleanliness and fresh air, are of the utmost importance ; constant attention to these particulars, will in a great measure remove the danger of infection, and without them all other means can avail nothing. Fumigation is an important aid in destroying an infectious atmosphere,

and different modes of employing it are added, as the subject is of the utmost importance.

THE NITROUS FUMIGATION. — Pour an ounce of sulphuric acid upon two ounces of saltpetre in a teacup, placed in a basin containing hot water; the gas will be immediately disengaged.

MURIATIC FUMIGATION. — On one pound of common salt, put into a deep pan, pour from time to time a small quantity of sulphuric acid, which will produce the gas required.

CHLORIDE OF LIME is a most convenient and effectual means of destroying all offensive effluvia, and preventing infection. To a table-spoonful of chloride of lime add gradually a quart of water, or to a pound of the chloride three gallons of water, stir the mixture well, and let it stand a short time to settle; then pour off the clear liquor, and keep it in well-corked bottles.

Whenever the air of a ship from any cause becomes infectious, each of the apartments should be closed and filled with the nitric or muriatic fumigation for an hour daily, until the whole ship be purified; or the infectious effluvia may be destroyed by the chloride of lime. The liquor should be sprinkled about the apartment of the sick freely and frequently. In putrid fevers and other malignant diseases, in addition to sprinkling the apartment, the bed and other linen should be immersed in the liquid for four or five minutes, and afterwards rinsed in pure water before being washed. A wine-glassful put into the chamber before using will prevent any smell.

Black Wash.

Take Calomel, (No. 43,) two drachms, lime water, half a pint, mix. A useful application to many kinds of sores.

The following Table shows the Doses of Medicine proportioned to the Age of the Patient.

Suppose the dose for an adult to be	one, or 1 drachm.
Under one year will only be	$\frac{1}{12}$ or 5 grains.
“ two years “ “ “	$\frac{1}{8}$ or 8 grains.
“ three “ “ “ “	$\frac{1}{6}$ or 10 grains.
“ four “ “ “ “	$\frac{1}{4}$ or 15 grains.
“ seven “ “ “ “	$\frac{1}{3}$ or 1 scruple.
“ fourteen “ “ “ “	$\frac{1}{2}$ or $\frac{1}{2}$ drachm.
“ twenty “ “ “ “	$\frac{2}{3}$ or 2 scruples.

TABLE OF WEIGHTS AND MEASURES,

Weights.

The smallest weights are called grains. Each dot upon the thin weights stands for one grain — for instance, a thin weight with five dots upon it, is five grains.

10 grains are half a scruple, marked thus	፬ss
20 “ one “ “ “	፬j
30 “ half a drachm “ “	፺ss
40 “ two scruples “ “	፬ij
60 “ one drachm “ “	፺j
480 “ one ounce “ “	፺i

Fluid Measure.

60 drops are one drachm, or one tea-spoonful	፺j
4 tea-spoonfuls are half an ounce	፺ss
1 table-spoonful is half an ounce	፺ss
1 wine-glassful contains two ounces	፺ij
1 tumblerful holds eight ounces, or half a pint	፬ss

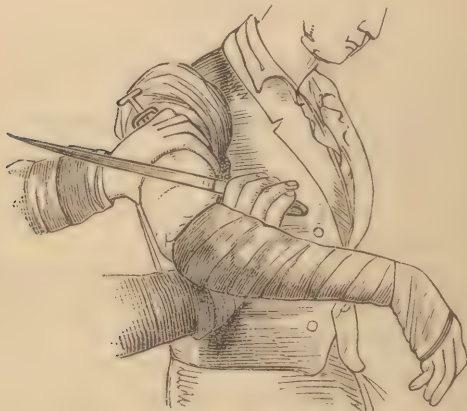
APPENDIX.

Amputation.

ALTHOUGH the cases justifying this operation in the absence of a surgeon are very rare, still such cases have occurred, and a few additional remarks may assist in facilitating the successful performance of the operation, should it unfortunately be necessary.

The operation, as described at page 108, is called the "circular" operation. Some of the very highest authorities object to the dissecting back the skin from the muscles, as they say this leaves merely a flap of skin to cover the stump of the bone; by no means a sufficient protection. It is recommended, instead, that after the skin is divided by the circular incision, as described, and well drawn back by the hands of the assistant, the muscular substance should be divided by three, four, or even more, successive circular cuts, the layer of muscle divided by each cut being drawn upward with the skin by the assistant, with gradually increasing force, so that when the bone is reached, the retractor applied and drawn forcibly upward, the bone may be sawed off as high under the flap as possible; and when the retractor is removed and the parts resume their natural position, a good thick flap, a sufficient covering of muscle and skin, will be preserved,

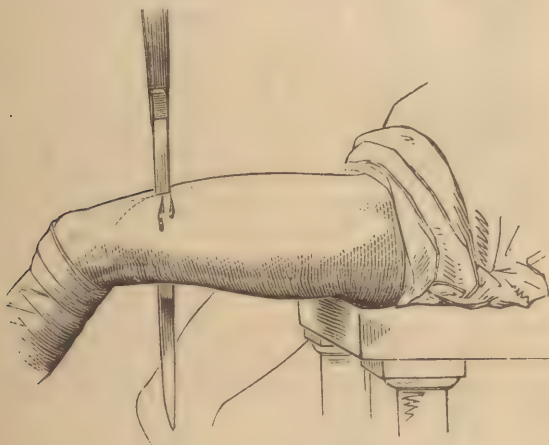
the skin being the longest, and, if properly joined by stitches, neatly covering all. The accompanying cut shows the method of holding the knife and making the incision.



There is another method of performing amputation, by what is called the “flap operation.” It is of more modern date than the “circular,” and it is claimed that it is simple and speedy in execution. It may be practised as follows : —

The limb should be grasped firmly on the outside at the point intended, and the muscles and soft parts drawn out, as it were, from the bone. A long and sharp-pointed knife should then be passed straight through the limb in the centre, close to and touching the bone, with the cutting edge towards the extremity, thus transfixing the limb

as in the annexed cut. (The arteries must, of course, be secured previously by compression, the tourniquet, or twisted handkerchief.) Now cut downwards and outwards, so as to leave a flap of four to six inches in length, or more, according to the size of the limb and the thick-



ness of the muscles, as in the dotted line in the cut. Pass in the knife again at the same place, but on the other side of the bone, cut a similar flap on the inside, this will leave nothing but the bone; next turn up the flaps, separate the flesh round the bone, pulling the flaps forcibly upwards so as to saw the bone across an inch higher than the place where the knife first entered. Smooth the end and edge of the stump by paring with a sharp knife, wash the wound with lukewarm water, tie up the arteries with suitable ligatures, bring the edges of

the flaps together with as many stitches as necessary, and the dressing of the stump may be finished as in the previous directions.

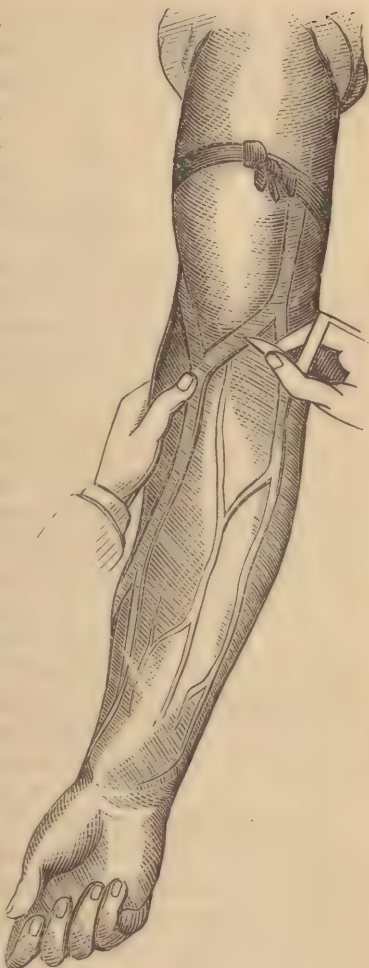
In all serious operations, care should be taken that every thing or instrument necessary be *at hand when required*, as a delay of a very few minutes at an unfortunate crisis might be fatal. A tourniquet, if procurable, should always be applied above the wound, in any operation or accident involving an artery, excepting in the neck or trunk, where, of course, it is inadmissible. In the absence of a tourniquet, a handkerchief or towel twisted round the limb, and tightened by means of a belaying pin or stick, as previously described, may answer very well. Twist it *quickly*, until the pulse is *entirely* stopped in the limb below. A common meat saw, or carpenter's backed saw, will answer to divide the bones with. In operating on the leg below the knee, or the arm below the elbow, as there are two bones, care must be taken not to pass the knife between them in transfixing the limb.

Further explanations respecting ligatures, sutures or stitches, strapping, &c., will be found in the paragraph treating of wounds.

Bleeding.

When the bandage is applied as in the directions page 110, and the vein to be punctured selected, place the thumb of the left hand upon it, half an inch below the spot to be pierced, grasping the arm with the left hand. This will steady both the arm and the vein. Make the

incision not directly in a line with the course of the vein, but a little slanting, as shown in the cut. The greatest care must be taken not to push the lancet too far in; it is only necessary to insert it far enough to enter the vein by the division of its outer side. Carelessness in this particular might result in transfixing or entire separation of the vein, which might cause troublesome results; and instances are on record where, by a careless plunge of the lancet, the vein was penetrated through both walls, and the artery, which often lies close under it at this point, dangerously wounded. If this accident should occur, the skin must be opened by an in-



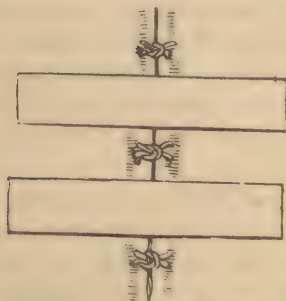
cision of about two inches in length, and the integuments carefully separated until the bleeding artery can be reached and secured with a ligature, as directed in the paragraph on wounds.

Wounds.

In the case of simple incised wounds, or clean cuts, as they are termed, if there are no arteries or large bleeding vessels divided, cleanse the wound with lukewarm water, and press the sides of it accurately together so as to entirely exclude the air. Hold it in this position until the edges can be properly secured together. If the wound is small, this may be done by one or two straps of sticking-plaster, as follows: Gently warm the strap of plaster, and apply one half of it to one side of the cut, pressing it till it adheres firmly, then stretch the other end across the cut, drawing it so as to keep the edges of the wound close together; bring it down on the skin, and press on it till it adheres. See that the edges of the wound are nicely fitted together, and if kept quiet, and circumstances are favorable, the wound will unite by what is called the "first intention," and the union will often be perfect in a few days, without any unpleasant symptom.

The straps may be cut half an inch to an inch wide, and three to six inches long, according to the size of the wound; but if the wound be large or deep, or much inclined to gape, it would be safer to fasten the edges together by sutures or stitches, which may be placed

about an inch apart, with a narrow strap of plaster between each two, as in the accompanying cut.



The thread used for sutures should be coarse sewing silk. If too fine, it may be doubled two or three times, as, if too fine a thread be used, it would be apt, when drawn tight, to cut its way out. A surgeon's needle should be used if obtainable; if not, a common sewing needle, large enough to carry the thread, will do. Pass it into the skin a quarter of an inch from the wound, and push it slantwise through the skin and cellular tissue, across the wound and up through the skin a quarter of an inch the other side. Draw it only sufficiently tight to bring the edges together, and tie it. For sutures and ligatures there is no knot answers so well as the common square or reef knot. Cut the ends off close, cover the wound with a piece of lint moistened with a cooling lotion, and apply a bandage moderately tight over all, to support the parts and prevent dragging on the stitches and straps; keep the parts as quiet as possible; if the

severity of the wound or the state of the constitution prevent the healing of the wound by the first intention, and inflammation and suppuration set in, it must be treated as a suppurating wound, dressed with cerate, or basilicon ointment spread on lint, and cooling lotions. If an artery be cut or injured, it should be taken hold of with a small, sharp hook, (called a tenaculum,) or with a small forceps, and a ligature applied; the wound can then be dressed as above.

The ligature used should be stout sewing or embroidery silk. If the artery be cut quite across, the bleeding end must be seized and drawn a little out of its sheath, the silk passed once round it, and tied with the common reef, or square knot, which is more secure than any other, and should always be used for ligatures and sutures. One of the ends should be then cut off close to the knot, and the other end left depending from the wound; in a few days the knot separates of itself, and may be gently drawn out. The practice adopted by some, of cutting off both ends and leaving the knot in the wound, is objectionable on some accounts.

If an artery be wounded without being entirely severed, raise it up a little, and with a bent needle pass the ligature under it, and tie it on the side of the wound next the heart. It may be necessary to enlarge the wound to get at the artery; in this case the incision should always be made in the same direction with the muscular fibres.

When an artery is wounded, the tourniquet should be immediately applied (or, in its absence, a handkerchief, as previously described) above the wound, and

when the ligatures are applied, before closing the wound, slacken the pressure to make sure that all is safe and the ligatures properly applied.

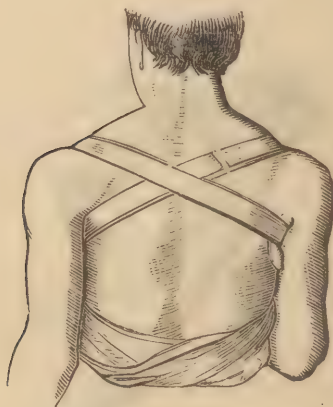
The accompanying cut shows the method of applying the tourniquet on the arm, with a rolled pad over the track of the large artery.



On the lower extremity, the tourniquet should be applied on the upper part of the thigh, with the pad in the hollow of the thigh just below the groin.

Fractures.

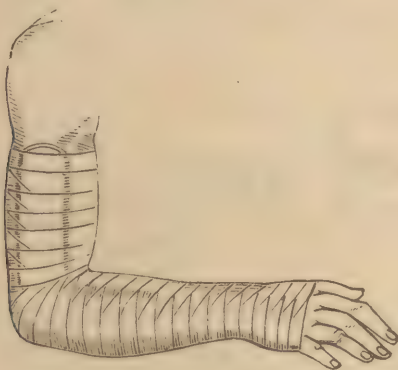
A few additional remarks on the subject of fractures may be of service. In addition to the means advised at page 125, for the treatment of fracture of the collar bone, a figure of 8 bandage will be of service to keep the shoulder back in its proper position. The cut given below will show the method of applying it. The



cushion under the armpit should be larger, proportionally, than the artist has figured it. The object is to keep the shoulder well out from the body, and back in its proper place till the broken bone is united, and thus prevent deformity from the shoulder settling inward and forward.

The arm should then be securely bandaged to the body so as to prevent the slightest motion, and the lower arm supported in a sling.

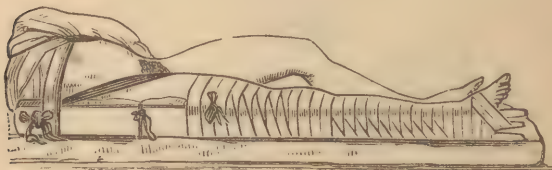
The next cut illustrates the method of applying the bandage in fracture of the arm. Bandage from the hand, moderately tight, but not so as to stop the circulation. This will prevent the troublesome swelling of the lower arm which otherwise would occur.



Fracture of the Thigh.

An excellent and simple method of treating this formidable injury is represented in the accompanying illustration. A piece of board, an inch thick and about four inches wide, or wider if the limb be unusually stout, is cut of such a length as to reach from the short ribs to four inches beyond the foot. Two deep notches are cut in the lower end, and two holes about an inch wide made

through the other end. The side to be applied to the limb is well padded with soft folded cloths, or any other convenient padding adapted to the inequalities of the limb, so as to prevent undue pressure on any prominent part. Place the patient on a firm mattress, and having extended the limb with steady force, and reduced the fracture, as directed page 127, bandage the foot and ankle securely to the notched end. Be sure to protect the foot and ankle from injury by plenty of soft padding. See that the foot is in its natural position, the toes neither turned in or out.

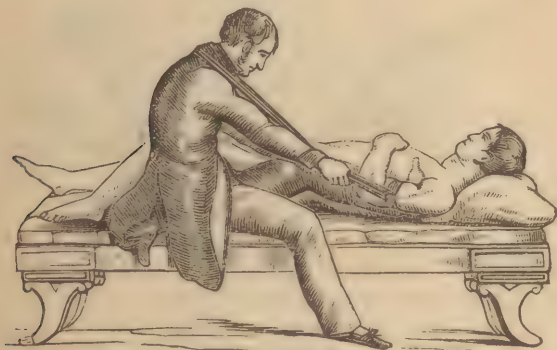


Next, fold up a large handkerchief or a towel cornerwise, with a little wool, cotton, or oakum in the centre fold to prevent chafing the skin, pass it between the thighs so that the middle shall rest on the perineum, and one end come up over the hip and the other underneath. Pass the corners of the handkerchief through the holes in the upper end of the splint; now, by drawing forcibly upon these, the splint is thrust downwards, and the foot and leg being secured to the lower end of it, the limb is kept in a suitable state of extension. The handkerchief may be tied so as to admit of its being drawn tighter, as may be necessary. The limb should now be bandaged to the splint from the toes up, as in the illustration, and if the

operation has been properly done, a very satisfactory result will be probably obtained.

Dislocations.

In dislocation of the shoulder, the method figured in the cut below may often succeed, when the usual plan, given at page 131, has failed to reduce the luxation. A towel, or still better, a large hank of woollen yarn, is fastened to the arm, above the elbow, and the ends attached to a broad bandage, a belt, or a piece of stout cloth, of sufficient length to reach round the shoulders of the operator, as in the annexed figure.



The patient lying down, the operator sits on the bed next the injured side, and placing his foot in the armpit of the patient, and the band across the shoulder, exten-

sion may be easily effected, and by a little dexterity the head of the bone may be replaced in the socket. In the cut the band is represented over the operator's neck, but more power can be gained by passing it over one shoulder, and under the opposite arm. In all cases of dislocation, perfect rest must be given to the injured joint for a considerable time after it is replaced. A soft cloth should be rolled round the limb before attaching the slings, to prevent injury to the skin.

Dislocation of the thigh is difficult to reduce, from the great power of the large muscles, which resist the extension necessary to replace the bone. The next illustration will show a very efficient method of reducing this dislocation.



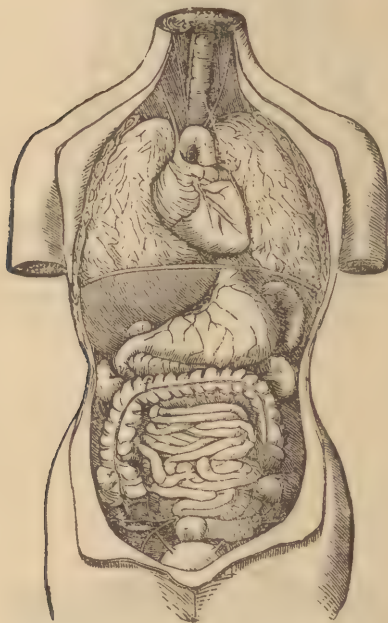
A mattress is placed on the floor, and the patient placed on it in the position shown above. Two ringbolts or eyebolts, which can be screwed into the floor, are provided. One of these is screwed into the floor close to the mattress, and the other into the wall or side of the apartment, in such positions that the line of draught between them shall be about in the direction represented in the cut. A sheet is folded, and passed between the

thighs, and the ends secured to the bolt in the floor. A suitable cloth is secured round the thigh, above the knee,



and a small tackle hooked to it, and to the eyebolt in the wall. An assistant pulls gradually on the tackle, so as to slowly extend the limb. No sudden pulls or violence will be of any avail; the strain must be gradual and steady to tire out the resistance of the muscles. When sufficiently extended, the operator replaces the head of the bone, and the tackle may be slacked up.

The cut on the previous page is given for the purpose of showing the position which the bones of the frame



occupy in the body, and may give a clearer idea of the nature of an injury in case of any fracture or dislocation.

As a guide to show the position of the principal organs of the body the preceding cut will be found useful. The heart and lungs are seen occupying the cavity of the thorax, and separated by the muscular partition called the diaphragm from the abdominal cavity which contains the liver, stomach, spleen, kidneys, small and large intestines, bladder, &c. The full length figure, given as the frontispiece of this volume, may also be examined carefully, and will give sufficient information on this subject to repay the trouble.

GENERAL REMARKS.

IN the administration of remedies, it is of the utmost importance that the *proper dose* should be given, and it should be accurately weighed or measured. In many instances, in fact, it would be better to omit the medicine altogether than to neglect proper care in this particular, for many medicines will produce very different, and sometimes entirely opposite effects, according as they are given in larger or smaller doses. Too much dependence should not be placed on medicine alone; good nursing and careful attention to the cleanliness, ease, and comfort of the patient, are often of greater efficacy in aiding nature to effect a cure than medicine alone could be. In all cases of malignant fevers, dysentery, and other infectious or contagious disorders, a constant supply of pure air, by means of wind-sails, or some such contrivance, is *absolutely necessary*, and, in fact, no prudent officer will neglect at all times to insure a proper ventilation of the ship under his charge. A wind-sail and a little chloride of lime, or other disinfectant, frequently used, will save many a dollar in hospital bills, loss of services, &c., and in an unhealthy port often averts the mortality of the pestilence. In long-continued sickness, or confinement to bed from fractures, &c., obstinate, and

even dangerous sores are liable to form upon the prominent parts of the back, the hips, or on the back part of the heel, from the continued pressure on the mattress. These may be prevented by means of soft cushions, made with a circular hole in the centre, to remove the pressure from the part.

In cases of accident, it is of paramount importance that the operator should preserve perfect presence of mind, as coolness and self-possession are most indispensable for the exercise of that sound judgment and prompt action so necessary in such cases. Do nothing rashly. Examine the patient thoroughly, yet gently, to ascertain the nature and amount of the injury. If there are dislocations or fractures, place the patient in bed in a suitable and comfortable position, and reduce them as speedily as possible, before the parts have begun to swell and thus make the reduction more difficult. If the patient be insensible, examine the head carefully for fracture, and if a portion of the skull be found depressed, dissect back a small flap of scalp over the part, and with a suitable instrument raise the depressed portion of bone to its natural position; taking the greatest care, however, to avoid injuring the investing membrane of the brain, which might bring on dangerous inflammation.

After a serious accident, fall, blow, or concussion, and sometimes from other causes, protracted insensibility occurs. In such cases, the muscles that open the urinary passage are frequently paralyzed, and retention of urine follows. If long neglected, even fatal results might follow from over distention of the bladder, and rupture of

that organ, or else inflammation result from this cause. It should therefore be always seen to by the physician, or his substitute, in cases of insensibility, that the bladder be emptied at proper intervals, by the catheter if necessary. Under the same circumstances the bowels should be attended to, and often, when from the insensibility of the patient, it is difficult to administer the ordinary purgatives, and yet is necessary to procure a passage from the bowels, a couple of drops of croton oil rubbed upon the tongue will promptly produce the desired effect.

In the state of collapse, which almost always follows severe accidents, and in some constitutions is brought on by even trifling injuries, great care must be taken to use no means calculated to depress still further the vital powers.

This condition is brought on by the shock to the nervous system, and is characterized by a feeble, thready pulse, skin cold and with a clammy feel, face pale, extremities cold, and often sickness at the stomach and vomiting. During the continuance of this state bleeding should never be attempted, and, indeed, might prove fatal; but, after a time, greater or less in different individuals, reaction sets in, manifested by fever, hot skin, strong and rapid pulse, &c. At the commencement of this stage is the proper time for bleeding, or other depletion, in suitable cases; but if the collapse should become alarming, and the patient evidently sinking, as sometimes occurs, from lack of sufficient stamina to bring on reaction, then stimulants, as ammonia, brandy, &c., should be administered in small doses, and often repeated, till reaction comes on.

This state often supervenes on surgical operations of any magnitude, and the operator should be prepared to meet it.

In some cases of fever, both of the simple continued and malignant types, the skin is found to be dry, and of a peculiar burning, pungent heat to the touch. This condition, termed by physicians "calor mordax," may often be greatly relieved, and the symptoms much improved, by sponging the whole body over, a part at a time, with a weak solution of saleratus, blood warm. The solution may be of the strength of half an ounce of saleratus, or of washing soda, to each quart of water.

A tourniquet, though not always supplied with medicine chests, except by request, is in some cases of accident invaluable, as it will instantly arrest the most formidable bleeding from wounds of the limbs, and give time to devise proper measures to save life. In fact, a humane and intelligent shipmaster well understands, that in nothing will economy more surely defeat its own object than in the furnishing his medicine chest. Judicious expenditure in having it well fitted out and supplied, and a little care in keeping it in order, is, in the end, always repaid with interest.

In treating wounds, it must be remembered that the blood is propelled from the heart with great force through a set of strong cartilaginous tubes, called the "arteries." When one of these is wounded, the blood rushes from it with great force, and in jets corresponding to the beats of the heart. This is the reason why wounds of the arteries are so dangerous, as from the force with which the blood escapes, it will not stop of its own accord, unless the

wounded artery is an exceedingly small one. The arteries usually run quite deep in the flesh, close to the bone, and the blood in them is of a bright scarlet color. After the force of the heart has been spent, the blood flows back in a gentle current through the veins, which run mostly near the surface, and close beneath the skin. It is now of a dark crimson tint. These facts will illustrate and explain some of the previous directions under the head of "Bleeding," "Wounds," &c.

A pair of tooth forceps is often a valuable addition to the contents of a medicine chest. If only one be supplied, it should be of the pattern called the "double curve," as this, with a little dexterity, will answer to extract any tooth.

A catheter ought to be considered an indispensable in the contents of the chest. An enema syringe, of the improved pattern, one or two surgeon's needles, a spatula, and a liberal supply of bandages, will, by their utility in some emergencies, more than pay their cost ten times over.

As many articles are often inquired after that are not put in medicine chests, unless particularly ordered, such, and any other medicines, will at all times be furnished when desired. Having the agency for some of the following popular remedies, they may be relied upon as genuine, and will be furnished on the most reasonable terms.

UVA URSI, OR BEARBERRY. — The leaves are the only part used in medicine. They are astringent and tonic, and seem to have a specific direction to the urinary

organs, and are used with success in the following complaints: Gravel, chronic inflammation of the bladder and kidneys, suppression of urine, incontinence of urine, gleet, leucorrhœa, &c. The dose of the powder is from one scruple to a drachm, repeated three or four times a day; that of the decoction, from half to a wine-glassful. The decoction is made by boiling one ounce of the leaves in one and a quarter pint of water down to one pint.

COMPOSITION. — This is a valuable preparation, and in a sudden cold, or slight attack of disease, it will, nine cases out of ten, if timely and freely used, effect a cure. To a tea-spoonful of the powder, and an equal quantity of sugar, add a tea-cupful of boiling water, and drink the tea when sufficiently cool. The patient should be in bed with a heated stone wrapped in a damp cloth, or a bottle of hot water, at the feet; or seated by the fire covered with a blanket. Very severe attacks of disease may be cured by giving it freely. If the stomach is very foul, it will sometimes act as an emetic, but not otherwise.

HOT, OR RHEUMATIC DROPS. — This medicine is extensively used throughout the United States, and is highly prized by all who are acquainted with its virtues. It promotes appetite and digestion, and relieves distress occasioned by improper food, either as to quality or quantity. It affords immediate relief in colic, and pains in the stomach and bowels; two or three tea-spoonfuls, repeated as occasion requires, is one of the best remedies in diarrhœa. Travellers and persons much exposed to a changeable climate, will find it excellent to guard them against cold and disease.

NEUROPATHIC DROPS. — A valuable remedy in cholera, cramps, and spasmodic affections, colic, sprains, rheumatism, &c. This remedy has come into use, on its own intrinsic merits, and enjoys a reputation for its promptness in removing pain, both internal and external, that has never been awarded to any similar preparation, and is emphatically the “Great Pain Killer” of the age.

WILSON'S DYSENTERY SYRUP. — This is an effectual remedy for cholera, dysentery, diarrhœa, cholera infantum, and bowel complaints generally.

MRS. KIDDER'S DIARRHŒA AND DYSENTERY CORDIAL.

OLD DR. WM. ABBOTT'S CELEBRATED BITTERS, FOR INDIGESTION, &c.

DR. BRANDRETH'S VEGETABLE PILLS.

WRIGHT'S INDIAN VEGETABLE PILLS.

HERBS OF ALL KINDS.

DOWN'S COUGH ELIXIR.

AYER'S CHERRY PECTORAL.

AYER'S CATHARTIC PILLS.

MORSE'S SYRUP OF YELLOW DOCK ROOT.

VEGETABLE PULMONARY BALSAM.

WISTAR'S BALSAM OF WILD CHERRY.

DAVIS' PAIN KILLER.

OSGOOD'S INDIA CHOLAGOGUE.

DAVIS' INFLAMMATORY EXTIRPATOR.

SANFORD'S SPANISH REMEDY.

AYER'S SARSAPARILLA.

PERUVIAN SYRUP.

AYER'S AGUE CURE.

